

Grangemouth High School

CfE Level 3
Numeracy Worksheets



CfE Level 3 Worksheets Topics Covered

| Cfe Experiences and Outcomes | Topics |
|---|--|
| <p><i>Estimation and Rounding</i></p> <p>I can round a number using an appropriate degree of accuracy, having taken into account the context of the question MNU 3-01a</p> <p><i>Number and Number Processes</i></p> <p>I can use a variety of methods to solve number Problems in familiar contexts, clearly communicating My processes and solutions MNU 3-03a</p> <p>I can continue to recall number facts quickly and use them accurately when making calculations MNU 3-03b</p> <p>I can use my understanding of numbers less than zero to solve simple problems in context. MNU 3-04a</p> <p><i>Fractions, decimal fractions and percentages including ratio and proportion</i></p> <p>I can solve problems by carrying out calculations with a wide range of fractions, decimal fractions and percentages, using my answers to make comparisons and informed choices for real-life situations MNU 2-07a</p> <p>I can show how quantities that are related can be increased or decreased proportionally and apply this to solve problems in everyday contexts MNU 3-08a</p> <p><i>Ideas of Chance and Uncertainty</i></p> <p>I can find the probability of a simple event happening and explain why the consequences of the event as well as its probability, should be considered when making choices MNU 3-22a</p> | <p>Rounding to any number of decimal places</p> <p>Rounding to any number of significant figures</p> <p>Estimating using significant figures</p> <p>Use quick methods to carry out mental calculations</p> <p>Add, subtract, multiply and divide decimals</p> <p>Multiplication of whole numbers by multiples of 10,100,1000</p> <p>Division of whole numbers by multiples of 10, 100, 1000</p> <p>Multiplication of decimals by multiples of 10, 100, 1000</p> <p>Division of decimals by multiples of 10, 100, 1000</p> <p>BIDMAS – Order of operations</p> <p>Long multiplication</p> <p>Long Division</p> <p>Integers (add, subtract, multiply, divide, including double negative)</p> <p>Percentages without a calculator</p> <p>Linking Fractions, Percentages and Decimal Fractions</p> <p>Converting between Improper Fractions and Mixed numbers</p> <p>Add and subtract fractions (basic)</p> <p>Add and subtract fractions (harder)</p> <p>Simplifying ratios</p> <p>Ratio calculations</p> <p>Squares, cubes, powers</p> <p>Square roots and Cube roots</p> <p>Multiplying fractions (including mixed numbers)</p> <p>Dividing fractions (including mixed numbers)</p> <p>Proportional division</p> <p>Probability</p> |

1) Round the following numbers to 1 decimal place :-

(a) 3.09

(b) 14.98

(c) 32.234

2) $9.4 - 4.6 =$

3) $71 \times 30 =$

4) $5.3 + 5.9 =$

5) $2700 \div 90 =$

6) $87 - 68 =$

7) $58.15 \times 10 =$

8) $\frac{1}{2}$ of 1000 =

9) $38.42 \div 10 =$

10) $46 + 64 =$

11) $1094 + 2068$

Working:

Answer:

12) 28.72×7

Working:

Answer:

13) $209.4 \div 6$

Working:

Answer:

14) $\frac{2}{3}$ of 696

Working:

Answer:

15) $273.7 - 18.61$

Working:

Answer:

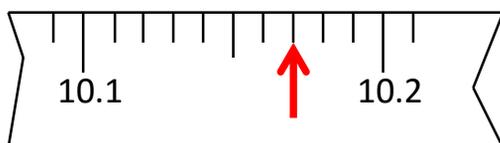
16) 313.9×5

Working:

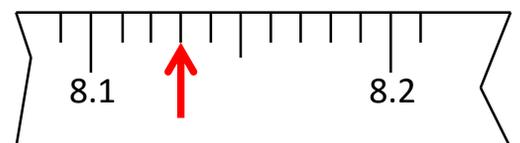
Answer:

17) What numbers are the arrows pointing at :-

(a)



(b)



1) Round the following numbers to the nearest 1000 :-

(a) 7395

(b) 49 601

(c) 38 810

(d) 483 621

2) $32 \times 4 =$

3) $2800 \div \underline{\quad} = 70$

4) $600 \times 70 =$

5) $30 \times 0.8 =$

6) $4780 + 250 =$

7) $8.09 \times 100 =$

8) $29.28 \div 10 =$

9) $5 + 12 \times 2 =$

10) $35 \times 6 =$

11) 2541×3

Working:

Answer:

12) $6900 - 2384$

Working:

Answer:

13) $\frac{3}{4}$ of 464

Working:

Answer:

14) $\pounds 3020.13 - \pounds 1265.45$

Working:

Answer:

15) 341.9×9

Working:

Answer:

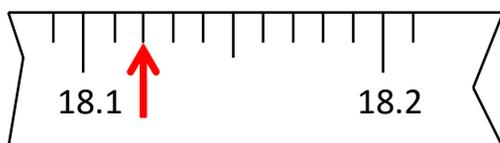
16) $142.2 \div 6$

Working:

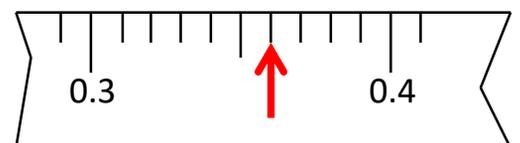
Answer:

17) What numbers are the arrows pointing at :-

(a)



(b)



1) Round the following numbers to 1 decimal place :-

(a) 8.7123

(b) 93.471

(c) 0.077

2) $34 \times 100 =$

3) $6.378 \times 100 =$

4) $3 \div \underline{\quad} = 0.03$

5) $0.2 \times 4 =$

6) $6200 + 5300 =$

7) $9 + 6 \div 3 - 2 =$

8) $423 \times 2000 =$

9) $203 \times 400 =$

10) $\frac{1}{3}$ of 318 =

11) $97.20 \div 8$

Working:

Answer:

12) $8723 + 7684$

Working:

Answer:

13) $3800 - 1734$

Working:

Answer:

14) $1382.52 + 27.4$

Working:

Answer:

15) 238.5×4

Working:

Answer:

16) $2050 - 864$

Working:

Answer:

17) Bolts cost 0.8p. A company orders 2000 bolts.
How much will this cost ?

Answer:

18) A grain of sand weighs 0.6mg
How much will 800 grains weigh?

Answer:

1) Round the following numbers to 2 decimal places :-

(a) 6.583

(b) 8.996

(c) 0.3451

2) $29.13 \times 100 =$

3) $9900 \div 30 =$

4) $9.32 \div 100 =$

5) $80 \times 90 =$

6) $45 \times 6 =$

7) $30 - 6 \times 4 =$

8) $150 + 420$

9) $720 - 280 =$

10) $54 \div 3 =$

11) $\pounds 7997 - \pounds 6005$

Working:

Answer:

12) 322.25×9

Working:

Answer:

13) $81.24 + 9.8$

Working:

Answer:

14) $\frac{5}{6}$ of 84

Working:

Answer:

15) $39.06 + 96.58$

Working:

Answer:

16) $258.3 \div 7$

Working:

Answer:

17) Find the sum and product of 8 and 20

Sum:

Product:

18) Find the sum and product of 3 and 50

Sum:

Product:

1) Round the following numbers to 3 decimal places :-

(a) 6.7923

(b) 0.3987

(c) 0.0447

(d) 4.5623

2) $84 \div 100 =$

3) $600 \times 52 =$

4) $3.02 \times 1000 =$

5) $0.4 \times 50 =$

6) $4.1 + 3.6 + 1.4 =$

7) $12 \div 6 + 5 =$

8) $5400 \div 60 =$

9) $2.5 - 0.6 =$

10) $320 - 70 =$

11) 623.4×8

Working:

Answer:

12) $27.34 + 38.93$

Working:

Answer:

13) $11.423 + 15.72 - 12.98$

Working:

Answer:

14) 32×18

Working:

Answer:

15) $4593 - 282$

Working:

Answer:

16) $\frac{7}{12}$ of 144

Working:

Answer:

17) In an experiment a beaker of H_2O has a mass of 1.104 kg. The beaker alone weighs 0.125 kg. What is the mass of the H_2O in the beaker ?

Answer:

1) Round the following numbers to 2 decimal places :-

(a) 4.593

(b) 6.387

(c) 0.999

(d) 3.039

2) $32.871 \div 100 =$

3) $203 \times 400 =$

4) $2.39 \times 10 =$

5) $2.42 \div 2 =$

6) $3.4 \times 6 =$

7) $75 \div (18 - 13) =$

8) $2000 \div 500 =$

9) $3300 + 2400 =$

10) $0.4 \times 0.2 =$

11) 15×16

Working:

Answer:

12) $82.92 + 21.8$

Working:

Answer:

13) $12 - 5.06 + 3.21$

Working:

Answer:

14) $\frac{3}{8}$ of 1600

Working:

Answer:

15) $4800 - 279$

Working:

Answer:

16) $200.2 \div 7$

Working:

Answer:

17) A sheet of card is 0.4 mm thick. How thick is a pack of card containing 80 sheets ?

Answer:

1) Round the following numbers to 1 significant figure :-

(a) 4501

(b) 347 832

(c) 0.0086

2) $0.3 \times 40 =$

3) $18.352 \times 1000 =$

4) $2000 \times 38 =$

5) $16.78 \div 10 =$

6) $0.5 \times 0.9 =$

7) $8 - 21 \div 3 + 5 =$

8) $2400 \div 30 =$

9) $400 + 700 =$

10) $0.8 \times 0.7 =$

11) 62×31

Working:

Answer:

12) $57.07 + 61.08$

Working:

Answer:

13) $11.523 + 15.82 - 12.88$

Working:

Answer:

14) $\frac{3}{5}$ of 275

Working:

Answer:

15) $58.32 - 24.83$

Working:

Answer:

16) $317.8 \div 5$

Working:

Answer:

17) Estimate the answer to the following :-

(a) $5788 - 791$

Answer:

(b) 421×29

Answer:

1) Round the following numbers to 2 significant figures :-

(a) 506

(b) 46.54

(c) 352 137

2) $87 \times 100 =$

3) $6.8 \div 1000 =$

4) $0.9 \times 3 =$

5) $0.63 \div 7 =$

6) $2700 \div 90 =$

7) $36 \div (2 + 7) =$

8) $46 + 64 =$

9) $88 - 59 =$

10) $4.3 + 7.8 =$

11) $10.24 \div 8$

Working:

Answer:

12) $27.18 + 55.34$

Working:

Answer:

13) $37.85 - 18.79$

Working:

Answer:

14) $\frac{3}{4}$ of 64

Working:

Answer:

15) $4173 - 284$

Working:

Answer:

16) 231.8×4

Working:

Answer:

17) There are 1000ml in a litre. Calculate the total volume of the following (work in litres):-

(a) 15L, 353ml, 820ml, 1.4L

Answer:

(b) 1.4L, 230ml, 0.45L

Answer:

1) Round the following numbers to 1 significant figure :-

(a) 84

(b) 37.01

(c) 0.0034

2) $9.7 \times 100 =$

3) $34.2 \div 1000 =$

4) $0.5 \times 7 =$

5) $0.81 \div 9 =$

6) $3200 \div 800 =$

7) $14 - 12 \div 4 =$

8) $7.3 + 5.6 =$

9) $11.8 - 7.9 =$

10) $700 \times 40 =$

11) $54.06 + 188.9 + 88.27$

Working:

Answer:

12) $117.2 \div 4$

Working:

Answer:

13) $28.33 - 8.9$

Working:

Answer:

14) $\frac{3}{8}$ of 120

Working:

Answer:

15) 327.1×9

Working:

Answer:

16) 32×42

Working:

Answer:

17) Arrange the numbers 1, 2, 3 and 4 in each of the following to make the problem correct

(a) $\square + \square = \square + \square$

(b) $\square \times \square = \square \square$

1) Round the following numbers to 2 decimal places :-

(a) 0.876

(b) 23.004

(c) 39.399

(d) 67.039

2) $40.12 \times 1000 =$

3) $1.97 \div 100 =$

4) $0.8 \times 7 =$

5) $0.6 \times 0.1 =$

6) $3600 \div 60 =$

7) $8 \times (9 + 11) =$

8) $0.56 \div 8 =$

9) $12.4 - 5.8 =$

10) $46 \times 3 =$

11) $34.21 + 280.9 + 27.83$

Working:

Answer:

12) $259.2 \div 6$

Working:

Answer:

13) $54.76 - 28.8$

Working:

Answer:

14) $\frac{4}{5}$ of 285

Working:

Answer:

15) 673.5×8

Working:

Answer:

16) 85×38

Working:

Answer:

17) The bill in a restaurant for 8 friends come to £192.32. They decide to give a £2 tip each. How much will each person pay? *(Show full working)*

1) Round the following numbers to 1 significant figure :-

(a) 482

(b) 8229

(c) 0.0654

2) $51.6 \times 100 =$

3) $34.87 \div 1000 =$

4) $8.6 + 12.8 =$

5) $0.9 \times 0.6 =$

6) $4200 \div 70 =$

7) $7 \times 8 - 5 \times 9 + 35 \div 7 =$

8) $4.27 \div 7 =$

9) $40 \times 0.6 =$

10) $104 \times 6 =$

11) $394.6 - 19.82$

Working:

Answer:

12) $268.8 \div 7$

Working:

Answer:

13) $2094 + 1067$

Working:

Answer:

14) $\frac{2}{3}$ of 849

Working:

Answer:

15) 481.7×3

Working:

Answer:

16) 43×44

Working:

Answer:

17) Estimate the answers to the following calculations :-

a) $\frac{21.3 + 58.7}{8.3}$

b) 31.2×48.7

1) Estimate the answers to the following calculations :-

(a) $243 \div 82$

(b) 32.1×58.8

2) $43.8 \times 100 =$

3) $763.2 \div 100 =$

4) $0.8 \times 0.4 =$

5) $4 \times \text{£}1.99 =$

6) $270 \div 30 =$

7) $7 \times (8+4) - 65 =$

8) $3.69 \div 9 =$

9) $30 \times 0.8 =$

10) $203 \times 6 =$

11) $3482 + 987$

Working:

Answer:

12) $173.23 + 675.39$

Working:

Answer:

13) $397.6 \div 7$

Working:

Answer:

14) $\frac{5}{6}$ of 570

Working:

Answer:

15) $457.6 - 34.56$

Working:

Answer:

16) 316×24

Working:

Answer:

17) Calculate the following :-

a) $43\,910 \div 5$

b) $10423 \div 7$

c) $79230 \div 6$

1) Round the following numbers to 3 significant figures :-

(a) 5483

(b) 0.04378

(c) 346 299

2) $89.45 \times 100 =$

3) $53 \div 100 =$

4) $0.2 \times 0.7 =$

5) $42\ 600 - 5000 =$

6) $72000 \div 800 =$

7) $450 \div (106 + 44) =$

8) $160 + 470 =$

9) $70 \times 0.2 =$

10) $7.7 - \underline{\quad} = 1.8$

11) 509.3×8

Working:

Answer:

12) $3451.6 + 789.7$

Working:

Answer:

13) $342.8 \div 4$

Working:

Answer:

14) $804.41 - 89.7$

Working:

Answer:

15) $2030 - 862$

Working:

Answer:

16) 283×52

Working:

Answer:

17) Willie and Shug are paid the same weekly rate for their work as joiners. Willie works for six weeks and Shug works for two weeks on the same job. Their total pay is £4768. How much does each receive ? (*show full working*)

CfE Level 3

Exercise 14

1) $0.7 \times 50 =$

4) $32\,500 - 4000 =$

7) $(9 \times 5) \div (3 \times 3) =$

10) $\text{£}840 - \text{£}468.84$

Working:

Answer:

13) $9000 - 248$

Working:

Answer:

16) If 9 marbles weigh 675g.
how heavy would 8
marbles be ?

Working:

Answer:

2) $0.32 \div 10 =$

5) $10800 \div 900 =$

8) $\frac{1}{5}$ of 1000 =

11) $251.1 \div 3$

Working:

Answer:

14) $\frac{3}{4}$ of 24.16

Working:

Answer:

17) A big stone weighs 1.25kg
and the small stone weighs
583g. What is the difference
in their weights ?

Working:

Answer:

3) $0.8 \times 0.3 =$

6) $3.5 \times 60 =$

9) $1.8 + 1.25 =$

12) $286.3 + 38.7$

Working:

Answer:

15) 52×28

Working:

Answer:

18) A van does 32 miles to a
gallon of petrol. How many
miles can it do with 18 gallons
of petrol ?

Working:

Answer:

1) Round to two significant figures:-

a) 0.00873

b) 345 678

2) $0.8 \times 600 =$

3) $0.05 \div 10 =$

4) $0.9 \times 0.7 =$

5) $49\ 600 - 7000 =$

6) $8800 \div 80 =$

7) $4.5 \times 70 =$

8) $(4 \times 8) \div (2 \times 3) =$

9) $\frac{1}{5}$ of 550 =

10) $7.3 + 4.6 =$

11) $7.45\text{km} + 843\text{m}$

12) $294.8 \div 11$

13) $1384.7 + 67.4$

Working:

Working:

Working:

Answer:

Answer:

Answer:

14) $8750 - 457$

15) $3.36 \div 1.4$

16) 45×257

Working:

Working:

Working:

Answer:

Answer:

Answer:

17) $684 \div 19$

18) If a rectangle has a length of 5.85m and a breadth of 3.8m
What size is its perimeter?

19) If a green book weighs 0.36kg and an orange book weighs 0.324kg. How much would 2 green and 3 orange books weigh?

Working:

Working:

Working:

Answer:

Answer:

Answer:

1) Put the following numbers in **ascending** order :-

a) 0, -8, 3, -7, 1

b) -12, 7, 2, -6, -1

2) $0.03 \times 400 =$

3) $28.74 \div 10 =$

4) $0.05 \times 0.3 =$

5) $\frac{5}{6}$ of $36m =$

6) $(6 + 12) \div 3 \times 3 =$

7) $3.2 \times 30 =$

8) $\frac{1}{4}$ of $1.6L =$

9) $48000 \div 30 =$

10) $(-4) \times (-8) =$

11) 345.3×9

12) $1641.5 \div 7$

13) $3022.9 + 38.7$

Working:

Working:

Working:

Answer:

Answer:

Answer:

14) $3800 - 567$

15) $\frac{3}{4}$ of 2732 kg

16) 342×27

Working:

Working:

Working:

Answer:

Answer:

Answer:

17) $777 \div 21$

18) Complete the following patterns

19) 8 marbles weigh 1kg. How much do 4 marbles weigh ?

Working:

48, 28, 8, _____

-5, 20, 35, _____

-8, -2, _____, 10

Working:

Answer:

Answer:

1) Put the following numbers in **descending** order :-

a) 0.04, 0.4, 0.044

b) 0.34, 0.04, 0.13

2) $2.4 \times 400 =$

3) $1.4 - 0.385 =$

4) $\frac{1}{3}$ of 6321 km =

5) $0.012 \times 100 =$

6) $\frac{1}{2}$ of $78 \div 3 =$

7) $23 \times 300 =$

8) $\frac{3}{5}$ of £7 =

9) $78.09 \div 100 =$

10) $45 \div (-5) =$

11) 893.07×8

12) $1407.6 \div 4$

13) $34.627 + 233.7$

Working:

Working:

Working:

Answer:

Answer:

Answer:

14) $392.11 - 3.452$

15) $75372 \div 6$

16) 273×35

Working:

Working:

Working:

Answer:

Answer:

Answer:

17) $6832 \div 16$

18) If 8 boxes weigh 5kg
What would 5 boxes weigh ?

19) A rectangle has a length of
4.72 m and a breadth of 3m
What is the area of the rectangle ?

Working:

Working:

Answer:

Answer:

Answer:

1) $6.3 \times 400 =$

2) $89 \div 10 =$

3) $\frac{3}{8}$ of 2.6 kg =

4) $\frac{3}{5}$ of £9 =

5) $7 - 2.125 =$

6) $63 \div (-7) =$

7) $(-12) \times (-2) =$

8) $\frac{3}{20}$ of 140 =

9) $-12 - (-3) =$

10) 507.23×9

Working:

Answer:

11) $4101 \div 6$

Working:

Answer:

12) $563.4 + 32.893$

Working:

Answer:

13) $543.2 - 89.85$

Working:

Answer:

14) $420 - \frac{1}{3}$ of 90×10

Working:

Answer:

15) 228×33

Working:

Answer:

16) $9414 \div 18$

Working:

Answer:

17) If $A = 6$ and $B = -4$
Find the values of :-

(a) $2A + B$

(b) $3(A + B)$

(c) $A - 2B$

Answers:

(a)

(b)

(c)

18) A rectangle has a length of 6.34cm and a breadth of 8cm
What is the area of the rectangle ?

Working:

Answer:

1) $4.58 \times 1000 =$

2) $231 \div 100 =$

3) $\frac{2}{5}$ of 7000 =

4) $0.6 \times 0.9 =$

5) $8 - 0.35 =$

6) $(-9) \times (-12) =$

7) $(-84) \div 7 =$

8) $16 - (-8) =$

9) $5600 \div 70 =$

10) $3162.5 \div 5$

Working:

Answer:

11) 4390.03×4

Working:

Answer:

12) $38.09 + 456.083$

Working:

Answer:

13) $3000 - 289.4$

Working:

Answer:

14) $393.7 - 16.52$

Working:

Answer:

15) 326×44

Working:

Answer:

16) $8736 \div 14$

Working:

Answer:

17) What comes next in the following patterns ?

(a) 3, 1.5, _____

(b) 7.2, 4.1, _____

(c) 0.75, 0.5, _____

18) If 20 boxes weigh 8kg altogether, how heavy would 13 boxes be ?

Working:

Answer:

1) 20% of $15\text{m} =$

2) $1.8 \times 400 =$

3) $72 \div 20 =$

4) $23.07 \div 1000 =$

5) $3600 \div 90 =$

6) $(-8) \times (-7) =$

7) $96 \div (-12) =$

8) $17 - (-9) =$

9) $0.038 \times 100 =$

10) $9.2 \text{ litres} + 945\text{ml}$

Working:

Answer:

11) 743.2×6

Working:

Answer:

12) $1880.9 \div 7$

Working:

Answer:

13) $231.83 + 18.7$

Working:

Answer:

14) $455.8 - 84.56$

Working:

Answer:

15) 683×26

Working:

Answer:

16) $6156 \div 19$

Working:

Answer:

17) Which is biggest ?

(a) $\frac{1}{40}$ $\frac{1}{25}$ $\frac{3}{100}$

(b) $\frac{5}{8}$ $\frac{3}{4}$ $\frac{2}{3}$

(c) $\frac{4}{5}$ $\frac{17}{20}$ $\frac{5}{8}$

Answer:

(a) (b) (c)

18) In a class of 32 children, 8 have a pet cat. What percentage have a pet cat ?

Working:

Answer:

1) 40% of 8 kg =

2) $4.3 \times 500 =$

3) $0.87 \div 10 =$

4) $34 \times 1000 =$

5) $1440 \div 120 =$

6) $(-56) \div 8 =$

7) $110 \div (-10) =$

8) $\frac{5}{6}$ of 3.6m =

9) 10% of £3 =

10) $8922.7 + 349.6$

Working:

Answer:

11) 459.71×8

Working:

Answer:

12) $2991.1 \div 7$

Working:

Answer:

13) $\frac{2}{3}$ of 819

Working:

Answer:

14) $4000 - 253.9$

Working:

Answer:

15) 745×38

Working:

Answer:

16) $7222 \div 23$

Working:

Answer:

17) Which is biggest ?

(a) 0.3 31% $\frac{3}{11}$

(b) 75% $\frac{7}{8}$ 0.74

(c) 0.66 65% $\frac{3}{5}$

Answer:

(a) (b) (c)

18) A basket of cost £65 last year. This year it has gone up by 15%. How much does the basket cost now ?

Working:

Answer:

1) Round the following number to **2 significant figures** :-

a) 38 782

b) 0.0874

2) $3.3 \times 900 =$

3) $69.15 \times 10 =$

4) $38.32 \div 10 =$

5) $3800 \div 190 =$

6) $\frac{1}{2}$ of $36 \div 3 =$

7) 80% of 250g =

8) 30 litres + 5% =

9) 60% of 35kg =

10) $81 \div (-9) =$

11) 324.7×6

12) $2066.4 \div 8$

13) $34.87 + 18.236$

Working:

Working:

Working:

Answer:

Answer:

Answer:

14) $90.83 - 48.35$

15) $(3 + 2)^2 + 18 \div 6$

16) 321×27

Working:

Working:

Working:

Answer:

Answer:

Answer:

17) $7392 \div 16$

18) A 240g block of ice lost 25% of it's weight due to melting. What is it's new weight ?

19) A rectangle has a length of 6.5 m and a breadth of 8.3m. What is the perimeter of the rectangle ?

Working:

Working:

Working:

Answer:

Answer:

Answer:

1) Round the following number to **1 decimal place** :-

a) 3.873

b) 15.029

2) $2^3 =$

3) $2.5 \times 4000 =$

4) $17.02 \div 1000 =$

5) $\sqrt{81} =$

6) $(3 \times 4) \div 2 + 4 =$

7) $\frac{5}{8} + \frac{1}{4} =$

8) $0.3 \times 0.6 =$

9) 75% of 348g =

10) $(-12) - (-7) =$

11) 383.2×4

12) $193.5 \div 5$

13) $35.51 - 19.763$

Working:

Working:

Working:

Answer:

Answer:

Answer:

14) $17.84 + 39.94$

15) 3287×9

16) 663×24

Working:

Working:

Working:

Answer:

Answer:

Answer:

17) $8136 \div 18$

18) Put brackets in to make the answer correct.

19) A square has an area of 6.25 cm^2 . What is the perimeter of the square ?

Working:

$$3 \times 6 \div 2 + 1 = 6$$

Working:

Answer:

Answer:

1) $61 \times 30 =$

2) $6.3 + 6.8 =$

3) $3600 \div 90 =$

4) $\frac{1}{5}$ of 1000 =

5) $3 \times 4^2 =$

6) 30% of 150g =

7) $9 \times 3 + (6 - 1) =$

8) $\frac{3}{5} + \frac{3}{10} =$

9) $(-7) \times (-8) =$

10) $15.38 + 9.872$

Working:

Answer:

11) 90% of 60 000 m

Working:

Answer:

12) 673.8×7

Working:

Answer:

13) $38.92 - 16.5$

Working:

Answer:

14) $12 \div 3 + 6 \times 2^2$

Working:

Answer:

15) 437×46

Working:

Answer:

16) Change the following into improper fractions

Working:

(a) $3 \frac{1}{4}$ (b) $7 \frac{2}{5}$ (c) $4 \frac{3}{8}$

Answers:

(a) (b) (c)

17) In a classroom the ratio of boys to girls is 1 : 3. There are 8 boys in the class, how many girls are there ?

Working:

Answer:

18) 35 % of £260

Working:

Answer:

1) $34 \times 20 =$

2) $20 - 12 \div (4 + 2) =$

3) $96000 \div 8000 =$

4) $-6 - (-2) =$

5) $20 \div (-4) =$

6) 70% of 2kg =

7) $38.99 \times 100 =$

8) $33\frac{1}{3}\%$ of 750m =

9) $\frac{1}{4} - \frac{1}{8} =$

10) 8734×8

Working:

Answer:

11) $\frac{1}{2}\%$ of £850

Working:

Answer:

12) $1489.3 + 324.65$

Working:

Answer:

13) 3% of £42

Working:

Answer:

14) $18000 - 983$

Working:

Answer:

15) 547×54

Working:

Answer:

16) Change the following into mixed numbers

Working:

(a) $\frac{17}{2}$ (b) $\frac{49}{9}$ (c) $\frac{51}{7}$

Answers:

(a) (b) (c)

17) Share 27 sweets between Trini and in the ratio of 2:1 so that Heather gets the larger share.

Working:

Answer:

18) Nine packets of laminating Sheets costs £7.29. How much would ten packets cost ?

Working:

Answer:

1) $8^3 =$

2) $9 \div 3 + 4 =$

3) $40 \times 50 \times 60 =$

4) $\sqrt[3]{27} =$

5) $48 \div (-6) =$

6) 15% of 50g =

7) $987 \div 10 =$

8) $\frac{4}{5}$ of 85 kg =

9) $92 \div 40 =$

10) 841.1×9

Working:

Answer:

11) 45% of £600

Working:

Answer:

12) $27.73 + 162.5$

Working:

Answer:

13) $237.42 \div 6$

Working:

Answer:

14) $9000 - 342$

Working:

Answer:

15) 239×52

Working:

Answer:

16) If food prices have risen by 8% over the last year, what would a basket of food costing £85 last year cost now?

Working:

Answer:

17) Share 240 sweets into two bags in the ratio 3:2. How many sweets will be in each bag?

Working:

Answer:

Bag 1: Bag 2:

18) $(8-2) \times 7 + 6^2 \div 12$

Working:

Answer:

1) $9^2 =$

2) $4 + 20 \div 4 =$

3) $4200 \div 70 =$

4) $\sqrt{49} =$

5) $144 \div (-12) =$

6) 35% of 40m =

7) $12.33 \times 10 =$

8) $762 \div 100 =$

9) $\text{£}34 - 5\% =$

10) 439.02×6

Working:

11) 3% of £ 7000

Working:

12) $23.61 + 246.8$

Working:

Answer:

Answer:

Answer:

13) $3168.2 \div 7$

Working:

14) $4050 - 837$

Working:

15) 675×67

Working:

Answer:

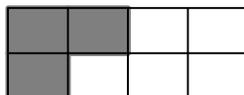
Answer:

Answer:

16) $19458 \div 46$

Working:

17) If the whole cake weighs 1.28kg, how heavy is the shaded part?



Working:

18) $7 - \frac{2}{7}$

Working:

Answer:

Answer:

Answer:

1) $13^2 =$

2) $6 + 8 \times 3 =$

3) $98.02 \times 1000 =$

4) $\sqrt{25} =$

5) $34 \div (-2) =$

6) 25% of 48g =

7) $87 \div 1000 =$

8) $6300 \div 900 =$

9) $\text{£}67 - 10\% =$

10) $673.88 + 34.125$

Working:

Answer:

11) 4% of £ 8000

Working:

Answer:

12) 5403.2×8

Working:

Answer:

13) $1807.2 \div 3$

Working:

Answer:

14) $35000 - 554$

Working:

Answer:

15) 437×48

Working:

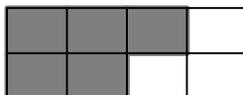
Answer:

16) $183.27 - 43.09$

Working:

Answer:

17) If the whole cake weighs 1.44kg, how heavy is the shaded part?



Working:

Answer:

18) $8 - \frac{2}{5}$

Working:

Answer:

1) $90.12 \times 10 =$

2) $7 + 18 \div 2 =$

3) $87.6 \div 10 =$

4) $\sqrt{64} =$

5) $(-9) \times (3) =$

6) 45% of 90km =

7) $5600 \div 70 =$

8) $\frac{3}{7}$ of 637 =

9) $\frac{1}{2} - \frac{1}{8} =$

10) $89.34 - 64.07$

Working:

11) 6703.6×4

Working:

12) 12.5% of £6000

Working:

Answer:

Answer:

Answer:

13) $2494.8 \div 7$

Working:

14) $45.3 + 272.9$

Working:

15) 329×26

Working:

Answer:

Answer:

Answer:

16) $10413 \div 13$

Working:

17) Share £6000 in the ratio of 2 : 1

Working:

18) Three toy trains cost £18.99
How much would 4 trains cost?

Working:

Answer:

Answer:

Answer:

1) $0.4 \times 0.9 =$

2) $9 + 24 \div 6 =$

3) $8 \div 1000 =$

4) $\sqrt{144} =$

5) $(-11) \times (-12) =$

6) 70% of 190kg =

7) $72000 \div 900 =$

8) $(-169) \div 13 =$

9) $268 - 57 =$

10) 382.4×8

Working:

Answer:

11) $\frac{9}{11}$ of 6820 km

Working:

Answer:

12) 7 % of £19 000

Working:

Answer:

13) $3898.2 \div 6$

Working:

Answer:

14) $14.8 + 395.8$

Working:

Answer:

15) 354×28

Working:

Answer:

16) $7896 \div 14$

Working:

Answer:

17) Share 180 sweets in the ratio of 2 : 3

Working:

Answer:

18) There is a 30% discount on a handbag costing £45. How much does the bag cost in the sale ?

Working:

Answer:

CfE Level 3 Numeracy

Answers

1) Round the following numbers to 1 decimal place :-

(a) $3.09 \rightarrow 3.1$

(b) $14.98 \rightarrow 15.0$

(c) $32.234 \rightarrow 32.2$

2) $9.4 - 4.6 = 4.8$

3) $71 \times 30 = 2130$

4) $5.3 + 5.9 = 11.2$

5) $2700 \div 90 = 30$

6) $87 - 68 = 19$

7) $58.15 \times 10 = 581.5$

8) $\frac{1}{2}$ of 1000 = 500

9) $38.42 \div 10 = 3.842$

10) $46 + 64 = 110$

11) $1094 + 2068$

Working:

$$\begin{array}{r} 1094 \\ + 2068 \\ \hline 3162 \\ \hline 11 \end{array}$$

Answer:

3162

12) 28.72×7

Working:

$$\begin{array}{r} 28.72 \\ \times 7 \\ \hline 201.04 \\ \hline 651 \end{array}$$

Answer:

201.04

13) $209.4 \div 6$

Working:

$$6 \overline{) 209.4} \begin{array}{l} 034.9 \\ \underline{20} \\ 20 \\ \underline{20} \\ 9.4 \\ \underline{6} \\ 34.9 \end{array}$$

Answer:

34.9

14) $\frac{2}{3}$ of 696

Working:

$$3 \overline{) 696} \quad \begin{array}{r} 232 \\ \times 2 \\ \hline 464 \end{array}$$

Answer:

464

15) $273.7 - 18.61$

Working:

$$\begin{array}{r} 6 \\ 273.70 \\ - 018.61 \\ \hline 255.09 \end{array}$$

Answer:

255.09

16) 313.9×5

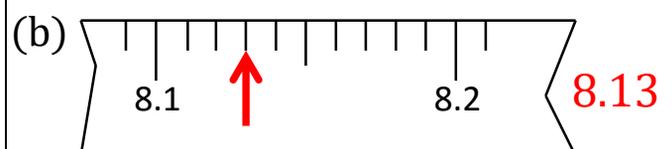
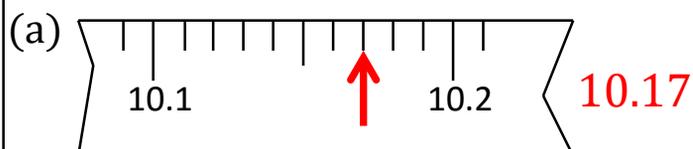
Working:

$$\begin{array}{r} 313.9 \\ \times 5 \\ \hline 1569.5 \\ \hline 14 \end{array}$$

Answer:

1569.5

17) What numbers are the arrows pointing at :-



1) Round the following numbers to the nearest 1000 :-

(a) 7395

7000

(b) 49 601

50 000

(c) 38 810

39 000

(d) 483 621

484 000

2) $32 \times 4 = 128$

3) $2800 \div 40 = 70$

4) $600 \times 70 = 42000$

5) $30 \times 0.8 = 24$

6) $4780 + 250 = 5030$

7) $8.09 \times 100 = 809$

8) $29.28 \div 10 = 2.928$

9) $5 + 12 \times 2 = 29$

10) $35 \times 6 = 210$

11) 2541×3

Working:

$$\begin{array}{r} 2541 \\ \times 3 \\ \hline 7623 \\ \hline 11 \end{array}$$

Answer:

7623

12) $6900 - 2384$

Working:

$$\begin{array}{r} 89 \\ 6900 \\ - 2384 \\ \hline 4516 \end{array}$$

Answer:

4516

13) $\frac{3}{4}$ of 464

Working:

$$\begin{array}{r} 116 \\ 4 \overline{) 464} \\ \underline{464} \\ 0 \end{array} \quad \begin{array}{r} 116 \\ \times 3 \\ \hline 348 \\ \hline 1 \end{array}$$

Answer:

348

14) $\text{£}3020.13 - \text{£}1265.45$

Working:

$$\begin{array}{r} 291910 \\ \text{£} 3020.13 \\ - \text{£} 1265.45 \\ \hline \text{£} 1754.68 \end{array}$$

Answer:

£ 1754.68

15) 341.9×9

Working:

$$\begin{array}{r} 341.9 \\ \times 9 \\ \hline 3077.1 \\ \hline 318 \end{array}$$

Answer:

3077.1

16) $142.2 \div 6$

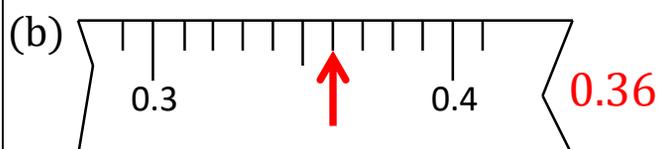
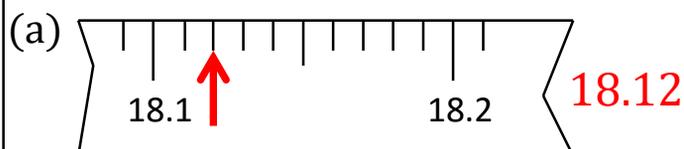
Working:

$$6 \overline{) 023.7} \\ \underline{142.2} \\ 0 \end{array}$$

Answer:

23.7

17) What numbers are the arrows pointing at :-



1) Round the following numbers to 1 decimal place :-

(a) 8.7123

8.7

(b) 93.471

93.5

(c) 0.077

0.1

2) $34 \times 100 = 3400$

3) $6.378 \times 100 = 637.8$

4) $3 \div 100 = 0.03$

5) $0.2 \times 4 = 0.8$

6) $6200 + 5300 = 11500$

7) $9 + 6 \div 3 - 2 = 9$

8) $423 \times 2000 = 846000$

9) $203 \times 400 = 81200$

10) $\frac{1}{3}$ of 318 = 106

11) $97.20 \div 8$

Working:

$$\begin{array}{r} 12.15 \\ 8 \overline{) 97.20} \\ \underline{8} \\ 17 \\ \underline{16} \\ 120 \\ \underline{112} \\ 80 \\ \underline{80} \\ 0 \end{array}$$

Answer:

12.15

12) $8723 + 7684$

Working:

$$\begin{array}{r} 8723 \\ + 7684 \\ \hline 16407 \\ \hline 11 \end{array}$$

Answer:

16407

13) $3800 - 1734$

Working:

$$\begin{array}{r} 79 \\ 3800 \\ - 1734 \\ \hline 2066 \end{array}$$

Answer:

2066

14) $1382.52 + 27.4$

Working:

$$\begin{array}{r} 1382.52 \\ + 27.40 \\ \hline 1409.92 \\ \hline 1 \end{array}$$

Answer:

1409.92

15) 238.5×4

Working:

$$\begin{array}{r} 238.5 \\ \times 4 \\ \hline 954.0 \\ \hline 132 \end{array}$$

Answer:

954.0

16) $2050 - 864$

Working:

$$\begin{array}{r} 1914 \\ 2050 \\ - 864 \\ \hline 1186 \end{array}$$

Answer:

1186

17) Bolts cost 0.8p. A company orders 2000 bolts.

How much will this cost ?

$$0.8 \times 2000 = \text{£}1600$$

Answer: **£1600**

18) A grain of sand weighs 0.6mg
How much will 800 grains weigh?

$$0.6 \times 800 = 480\text{mg}$$

Answer: **480mg**

1) Round the following numbers to 2 decimal places :-

(a) 6.583

6.58

(b) 8.996

9.00

(c) 0.3451

0.35

2) $29.13 \times 100 = 2913$

3) $9900 \div 30 = 330$

4) $9.32 \div 100 = 0.0932$

5) $80 \times 90 = 7200$

6) $45 \times 6 = 270$

7) $30 - 6 \times 4 = 6$

8) $150 + 420 = 570$

9) $720 - 280 = 440$

10) $54 \div 3 = 18$

11) £7997 - £6005

Working:

$$\begin{array}{r} 7997 \\ - 6005 \\ \hline \underline{\underline{\pounds 1992}} \end{array}$$

Answer:

£ 1992

12) 322.25×9

Working:

$$\begin{array}{r} 322.25 \\ \times 9 \\ \hline \underline{\underline{2900.25}} \\ \small{2 \quad 2 \quad 2 \quad 4} \end{array}$$

Answer:

2900.25

13) $81.24 + 9.8$

Working:

$$\begin{array}{r} 81.24 \\ + 9.80 \\ \hline \underline{\underline{91.04}} \\ \small{1 \quad 1} \end{array}$$

Answer:

91.04

14) $\frac{5}{6}$ of 84

Working:

$$\begin{array}{r} 14 \quad 14 \\ 6 \overline{) 84} \quad \underline{\underline{70}} \\ \small{2} \end{array}$$

Answer:

70

15) $39.06 + 96.58$

Working:

$$\begin{array}{r} 39.06 \\ + 96.58 \\ \hline \underline{\underline{135.64}} \\ \small{1 \quad 1} \end{array}$$

Answer:

135.64

16) $258.3 \div 7$

Working:

$$7 \overline{) 258.3} \begin{array}{l} 036.9 \\ \small{2 \quad 2 \quad 4 \quad 6} \end{array}$$

Answer:

36.9

17) Find the sum and product of 8 and 20

Sum $8 + 20 = 28$

Product $8 \times 20 = 160$

Sum 28

Product 160

18) Find the sum and product of 3 and 50

Sum $3 + 50 = 53$

Product $3 \times 50 = 150$

Sum 53

Product 150

1) Round the following numbers to 3 decimal places :-

(a) 6.7923

6.792

(b) 0.3987

0.399

(c) 0.0447

0.045

(d) 4.5623

4.562

2) $84 \div 100 = 0.84$

3) $600 \times 52 = 31200$

4) $3.02 \times 1000 = 3020$

5) $0.4 \times 50 = 20$

6) $4.1 + 3.6 + 1.4 = 9.1$

7) $12 \div 6 + 5 = 7$

8) $5400 \div 60 = 90$

9) $2.5 - 0.6 = 1.9$

10) $320 - 70 = 250$

11) 623.4×8

Working:

$$\begin{array}{r} 623.4 \\ \times 8 \\ \hline 4987.2 \\ \hline \end{array}$$

Answer:

4987.2

12) $27.34 + 38.93$

Working:

$$\begin{array}{r} 27.34 \\ + 38.93 \\ \hline 66.27 \\ \hline \end{array}$$

Answer:

66.27

13) $11.423 + 15.72 - 12.98$

Working:

$$\begin{array}{r} 11.423 \\ + 15.720 \\ \hline 27.143 \\ \hline \end{array} \quad \begin{array}{r} 11.423 \\ - 12.980 \\ \hline 14.163 \\ \hline \end{array}$$

Answer:

14.163

14) 32×18

Working:

$$\begin{array}{r} 32 \\ \times 18 \\ \hline 256 \\ 320 \\ \hline 576 \\ \hline \end{array}$$

Answer:

576

15) $4593 - 282$

Working:

$$\begin{array}{r} 4593 \\ - 0282 \\ \hline 4311 \\ \hline \end{array}$$

Answer:

4311

16) $\frac{7}{12}$ of 144

Working:

$144 \div 12 = 12$

$12 \times 7 = 84$

Answer:

84

17) In an experiment a beaker of H_2O has a mass of 1.104 kg. The beaker alone weighs 0.125 kg. What is the mass of the H_2O in the beaker ?

$$\begin{array}{r} 0.104 \\ - 0.125 \\ \hline 0.979 \\ \hline \end{array}$$

Answer:

0.979 kg

1) Round the following numbers to 2 decimal places :-

(a) 4.593

4.59

(b) 6.387

6.39

(c) 0.999

1.00

(d) 3.039

3.04

2) $32.871 \div 100 = 0.32871$

3) $203 \times 400 = 81200$

4) $2.39 \times 10 = 23.9$

5) $2.42 \div 2 = 1.21$

6) $3.4 \times 6 = 20.4$

7) $75 \div (18 - 13) = 15$

8) $2000 \div 500 = 4$

9) $3300 + 2400 = 5700$

10) $0.4 \times 0.2 = 0.08$

11) 15×16

Working:

$$\begin{array}{r} 15 \\ \times 16 \\ \hline 90 \\ 150 \\ \hline 240 \end{array}$$

Answer:

240

12) $82.92 + 21.8$

Working:

$$\begin{array}{r} 82.92 \\ + 21.80 \\ \hline 104.72 \\ \hline 1 \end{array}$$

Answer:

104.72

13) $12 - 5.06 + 3.21$

Working:

$$\begin{array}{r} 12 \\ - 5.06 \\ \hline 6.94 \\ + 3.21 \\ \hline 10.15 \\ \hline 1 \end{array}$$

Answer:

10.15

14) $\frac{3}{8}$ of 1600

Working:

$$8 \overline{) 1600} \quad \begin{array}{r} 200 \\ \times 3 \\ \hline 600 \end{array}$$

Answer:

600

15) $4800 - 279$

Working:

$$\begin{array}{r} 4800 \\ - 279 \\ \hline 4521 \end{array}$$

Answer:

4521

16) $200.2 \div 7$

Working:

$$7 \overline{) 200.2} = 28.6$$

Answer:

28.6

17) A sheet of card is 0.4 mm thick. How thick is a pack of card containing 80 sheets ?

$$0.4 \times 10 = 4$$

$$4 \times 8 = 32 \text{ mm}$$

Answer:

32 mm

1) Round the following numbers to 1 significant figure :-

(a) 4501

5000

(b) 347 832

300 000

(c) 0.0086

0.009

2) $0.3 \times 40 = 12$ 3) $18.352 \times 1000 = 18352$ 4) $2000 \times 38 = 76000$ 5) $16.78 \div 10 = 1.678$ 6) $0.5 \times 0.9 = 0.45$ 7) $8 - 21 \div 3 + 5 = 6$ 8) $2400 \div 30 = 80$ 9) $400 + 700 = 1100$ 10) $0.8 \times 0.7 = 0.56$ 11) 62×31

Working:

$$\begin{array}{r} 62 \\ \times 31 \\ \hline 62 \\ 1860 \\ \hline 1922 \end{array}$$

Answer:

1922

12) $57.07 + 61.08$

Working:

$$\begin{array}{r} 57.07 \\ + 61.08 \\ \hline 118.15 \\ \hline 1 \end{array}$$

Answer:

118.15

13) $11.523 + 15.82 - 12.88$

Working:

$$\begin{array}{r} 11.523 \\ + 15.820 \\ \hline 27.343 \\ \hline 1 \end{array} \quad \begin{array}{r} 27.343 \\ - 12.880 \\ \hline 14.463 \end{array}$$

Answer:

14.463

14) $\frac{3}{5}$ of 275

Working:

$$5 \overline{) 275} \quad \begin{array}{r} 055 \\ \times 3 \\ \hline 165 \\ \hline 1 \end{array}$$

Answer:

165

15) $58.32 - 24.83$

Working:

$$\begin{array}{r} 58.32 \\ - 24.83 \\ \hline 33.49 \end{array}$$

Answer:

33.49

16) $317.8 \div 5$

Working:

$$5 \overline{) 317.80} \quad \begin{array}{r} 063.56 \\ \hline 3317.80 \end{array}$$

Answer:

63.56

17) Estimate the answer to the following :-

(a) $5788 - 791$

$$5800 - 800 \\ \approx 5000$$

Answer:

 ≈ 5000 (b) 421×29

$$420 \times 30 \\ \approx 12600$$

Answer:

 ≈ 12600

1) Round the following numbers to 2 significant figures :-

(a) 506 **510**

(b) 46.54 **47**

(c) 352 137 **350 000**

2) $87 \times 100 = 8700$

3) $6.8 \div 1000 = 0.0068$

4) $0.9 \times 3 = 2.7$

5) $0.63 \div 7 = 0.09$

6) $2700 \div 90 = 30$

7) $36 \div (2 + 7) = 4$

8) $46 + 64 = 110$

9) $88 - 59 = 29$

10) $4.3 + 7.8 = 12.1$

11) $10.24 \div 8$

Working:

$$\begin{array}{r} 01.28 \\ 8 \overline{) 10.24} \\ \underline{8} \\ 2 \\ \underline{16} \\ 4 \\ \underline{4} \\ 0 \end{array}$$

Answer:

1.28

12) $27.18 + 55.34$

Working:

$$\begin{array}{r} 27.18 \\ + 55.34 \\ \hline 82.52 \\ \hline 1 1 \end{array}$$

Answer:

82.52

13) $37.85 - 18.79$

Working:

$$\begin{array}{r} 2 7.85 \\ - 18.79 \\ \hline 19.06 \\ \hline 1 1 \end{array}$$

Answer:

19.06

14) $\frac{3}{4}$ of 64

Working:

$$\begin{array}{r} 16 \\ 4 \overline{) 64} \\ \underline{4} \\ 24 \\ \underline{24} \\ 0 \end{array} \quad \begin{array}{r} 16 \\ \times 3 \\ \hline 48 \\ \hline 1 \end{array}$$

Answer:

48

15) $4173 - 284$

Working:

$$\begin{array}{r} 3 10 16 \\ \cancel{4} \cancel{1} \cancel{7} 13 \\ - 0284 \\ \hline 3889 \end{array}$$

Answer:

3889

16) 231.8×4

Working:

$$\begin{array}{r} 231.8 \\ \times 4 \\ \hline 927.2 \\ \hline 1 3 \end{array}$$

Answer:

927.2

17) There are 1000ml in a litre. Calculate the total volume of the following (work in litres):-

(a) 15L, 353ml, 820ml, 1.4L

$$15 + 0.353 + 0.820 + 1.4 = 17.573 \text{ L}$$

Answer:

17.573 L

(b) 1.4L, 230ml, 0.45L

$$1.4 + 0.230 + 0.45 = 1.98 \text{ L}$$

Answer:

2.08L

1) Round the following numbers to 1 significant figure :-

(a) 84

80

(b) 37.01

40

(c) 0.0034

0.003

2) $9.7 \times 100 = 970$

3) $34.2 \div 1000 = 0.0342$

4) $0.5 \times 7 = 3.5$

5) $0.81 \div 9 = 0.09$

6) $3200 \div 800 = 4$

7) $14 - 12 \div 4 = 11$

8) $7.3 + 5.6 = 12.9$

9) $11.8 - 7.9 = 3.9$

10) $700 \times 40 = 28000$

11) $54.06 + 188.9 + 88.27$

Working:

$$\begin{array}{r} 54.06 \\ + 188.90 \\ 88.27 \\ \hline 331.23 \\ \hline 211 \end{array}$$

Answer:

331.23

12) $117.2 \div 4$

Working:

$$\begin{array}{r} 029.3 \\ 4 \overline{) 117.2} \\ \underline{4} \\ 11 \\ \underline{4} \\ 7 \\ \underline{6} \\ 12 \\ \underline{8} \\ 4 \end{array}$$

Answer:

29.3

13) $28.33 - 8.9$

Working:

$$\begin{array}{r} 28.33 \\ - 08.90 \\ \hline 19.43 \end{array}$$

Answer:

19.43

14) $\frac{3}{8}$ of 120

Working:

$$\begin{array}{r} 015 \\ 8 \overline{) 120} \\ \underline{8} \\ 40 \\ \underline{40} \\ 0 \end{array} \quad \begin{array}{r} 15 \\ \times 3 \\ \hline 45 \\ \hline 1 \end{array}$$

Answer:

45

15) 327.1×9

Working:

$$\begin{array}{r} 327.1 \\ \times 9 \\ \hline 2943.9 \end{array}$$

Answer:

2943.9

16) 32×42

Working:

$$\begin{array}{r} 32 \\ \times 42 \\ \hline 64 \\ 1280 \\ \hline 1344 \end{array}$$

Answer:

1344

17) Arrange the numbers 1, 2, 3 and 4 in each of the following to make the problem correct

(a) $\boxed{3} + \boxed{2} = \boxed{4} + \boxed{1}$

(b) $\boxed{3} \times \boxed{4} = \boxed{1} \boxed{2}$

1) Round the following numbers to 2 decimal places :-

(a) 0.876

0.88

(b) 23.004

23.00

(c) 39.399

39.40

(d) 67.039

67.04

2) $40.12 \times 1000 = 40120$

3) $1.97 \div 100 = 0.0197$

4) $0.8 \times 7 = 5.6$

5) $0.6 \times 0.1 = 0.06$

6) $3600 \div 60 = 60$

7) $8 \times (9 + 11) = 160$

8) $0.56 \div 8 = 0.07$

9) $12.4 - 5.8 = 6.6$

10) $46 \times 3 = 138$

11) $34.21 + 280.9 + 27.83$

Working:

$$\begin{array}{r} 34.21 \\ + 280.90 \\ + 27.83 \\ \hline 342.94 \\ \hline 11 \end{array}$$

Answer:

342.94

12) $259.2 \div 6$

Working:

$$6 \overline{) 259.2} \begin{array}{l} 43.2 \\ \underline{24} \\ 19 \\ \underline{18} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

Answer:

43.2

13) $54.76 - 28.8$

Working:

$$\begin{array}{r} 4 \\ 54.76 \\ - 28.80 \\ \hline 25.96 \end{array}$$

Answer:

25.96

14) $\frac{4}{5}$ of 285

Working:

$$5 \overline{) 2835} \begin{array}{l} 57 \\ \underline{20} \\ 83 \\ \underline{80} \\ 35 \\ \underline{35} \\ 0 \end{array}$$

Answer:

228

15) 673.5×8

Working:

$$\begin{array}{r} 673.5 \\ \times 8 \\ \hline 5388.0 \\ \hline 524 \end{array}$$

Answer:

5388.0

16) 85×38

Working:

$$\begin{array}{r} 85 \\ \times 38 \\ \hline 680 \\ + 2550 \\ \hline 3230 \\ \hline 11 \end{array}$$

Answer:

3230

17) The bill in a restaurant for 8 friends come to £192.32. They decide to give a £2 tip each. How much will each person pay? (*Show full working*)

$8 \times 2 = \text{£}16$

$$\begin{array}{r} 192.32 \\ + 16.00 \\ \hline 208.32 \\ \hline 1 \end{array}$$

$$8 \overline{) 208.32} \begin{array}{l} 26.04 \\ \underline{16} \\ 48 \\ \underline{40} \\ 83 \\ \underline{80} \\ 32 \\ \underline{32} \\ 0 \end{array}$$

Each person pays
£26.04

1) Estimate the answers to the following calculations :-

(a) $243 \div 82$

$\approx 240 \div 80 = 3$

(b) 32.1×58.8

$\approx 30 \times 60 = 1800$

2) $43.8 \times 100 = 4380$

3) $763.2 \div 100 = 7.632$

4) $0.8 \times 0.4 = 0.32$

5) $4 \times \text{£}1.99 = \text{£}7.96$

6) $270 \div 30 = 9$

7) $7 \times (8+4) - 65 = 19$

8) $3.69 \div 9 = 0.41$

9) $30 \times 0.8 = 24$

10) $203 \times 6 = 1218$

11) $3482 + 987$

Working:

$$\begin{array}{r} 3482 \\ + 0987 \\ \hline 4469 \\ \hline 11 \end{array}$$

Answer:

4469

12) $173.23 + 675.39$

Working:

$$\begin{array}{r} 173.23 \\ + 675.39 \\ \hline 848.62 \\ \hline 11 \end{array}$$

Answer:

848.62

13) $397.6 \div 7$

Working:

$$7 \overline{) 397.6} \begin{array}{l} 056.8 \\ \hline 3^3 9^4 7^5 . 6 \end{array}$$

Answer:

56.8

14) $\frac{5}{6}$ of 570

Working:

$$6 \overline{) 570} \begin{array}{l} 095 \\ \hline 5^5 7^3 0 \end{array} \quad \begin{array}{r} 95 \\ \times 5 \\ \hline 475 \\ \hline 2 \end{array}$$

Answer:

475

15) $457.6 - 34.56$

Working:

$$\begin{array}{r} 457.60 \\ - 034.56 \\ \hline 423.04 \end{array}$$

Answer:

423.04

16) 316×24

Working:

$$\begin{array}{r} 316 \\ \times 24 \\ \hline 1264 \\ \hline 6320 \\ \hline 7584 \end{array}$$

Answer:

7584

17) Calculate the following :-

a) $43910 \div 5$

$$5 \overline{) 43910} \begin{array}{l} 08782 \\ \hline 4^4 3^3 9^4 1^1 0 \end{array}$$

b) $10423 \div 7$

$$7 \overline{) 10423} \begin{array}{l} 01489 \\ \hline 1^1 0^3 4^6 2^6 3 \end{array}$$

c) $79230 \div 6$

$$6 \overline{) 79230} \begin{array}{l} 13205 \\ \hline 7^1 9^1 2^3 3 0 \end{array}$$

1) Round the following numbers to 3 significant figures :-

(a) 5483 5480

(b) 0.04378 0.0438

(c) 346 299 346 000

2) $89.45 \times 100 = 8945$

3) $53 \div 100 = 0.53$

4) $0.2 \times 0.7 = 0.14$

5) $42600 - 5000 = 37600$

6) $72000 \div 800 = 90$

7) $450 \div (106 + 44) = 3$

8) $160 + 470 = 630$

9) $70 \times 0.2 = 14$

10) $7.7 - 5.9 = 1.8$

11) 509.3×8

Working:

$$\begin{array}{r} 509.3 \\ \times 8 \\ \hline 4074.4 \\ \hline 72 \end{array}$$

Answer:

4074.4

12) $3451.6 + 789.7$

Working:

$$\begin{array}{r} 3451.6 \\ + 0789.7 \\ \hline 4241.3 \\ \hline 1111 \end{array}$$

Answer:

4241.3

13) $342.8 \div 4$

Working:

$$\begin{array}{r} 085.7 \\ 4 \overline{) 342.8} \end{array}$$

Answer:

85.7

14) $804.41 - 89.7$

Working:

$$\begin{array}{r} 79^1 3^1 \\ 804.41 \\ - 089.70 \\ \hline 714.71 \end{array}$$

Answer:

714.71

15) $2030 - 862$

Working:

$$\begin{array}{r} 19^1 2^1 \\ 2030 \\ - 0862 \\ \hline 1168 \end{array}$$

Answer:

1168

16) 283×52

Working:

$$\begin{array}{r} 283 \\ \times 52 \\ \hline 566 \\ 14150 \\ \hline 14716 \\ 1 \end{array}$$

Answer:

14716

17) Willie and Shug are paid the same weekly rate for their work as joiners. Willie works for six weeks and Shug works for two weeks on the same job. Their total pay is £4768. How much does each receive ? (*show full working*)

$$\begin{array}{r} 0596 \\ 8 \overline{) 4768} \end{array}$$

1 week = £ 596

$$\begin{array}{r} \text{Willie: } 596 \\ \times 6 \\ \hline \text{£ } 3576 \\ \hline 53 \end{array}$$

$$\begin{array}{r} \text{Shug: } 596 \\ \times 2 \\ \hline \text{£ } 1192 \\ \hline 11 \end{array}$$

CfE Level 3

Exercise 14

1) $0.7 \times 50 = 35$

2) $0.32 \div 10 = 0.032$

3) $0.8 \times 0.3 = 0.24$

4) $32500 - 4000 = 28500$

5) $10800 \div 900 = 12$

6) $3.5 \times 60 = 210$

7) $(9 \times 5) \div (3 \times 3) = 5$

8) $\frac{1}{5}$ of 1000 = 200

9) $1.8 + 1.25 = 3.05$

10) £840 - £468.84

Working:

$$\begin{array}{r}
 7^1 3^9 9^9 \\
 8^1 4^1 0^1 0^1 0^1 \\
 - 468.84 \\
 \hline
 371.16
 \end{array}$$

Answer:

371.16

11) $251.1 \div 3$

Working:

$$\begin{array}{r}
 083.7 \\
 3 \overline{) 251.1} \\
 \underline{24} \\
 11 \\
 \underline{9} \\
 21 \\
 \underline{21} \\
 0
 \end{array}$$

Answer:

83.7

12) $286.3 + 38.7$

Working:

$$\begin{array}{r}
 286.3 \\
 + 38.7 \\
 \hline
 325.0 \\
 \hline
 111
 \end{array}$$

Answer:

325.0

13) $9000 - 248$

Working:

$$\begin{array}{r}
 8^9 9^9 \\
 9^1 0^1 0^1 0^1 \\
 - 0248 \\
 \hline
 8752
 \end{array}$$

Answer:

8752

14) $\frac{3}{4}$ of 24.16

Working:

$$\begin{array}{r}
 06.04 \\
 4 \overline{) 24.16} \\
 \underline{24} \\
 16 \\
 \underline{12} \\
 416 \\
 \underline{416} \\
 0
 \end{array}$$

Answer:

18.12

15) 52×28

Working:

$$\begin{array}{r}
 52 \\
 \times 28 \\
 \hline
 416 \\
 1040 \\
 \hline
 1456
 \end{array}$$

Answer:

1456

16) If 9 marbles weigh 675g. how heavy would 8 marbles be ?

Working:

$$\begin{array}{r}
 75 \\
 9 \overline{) 675} \\
 \underline{63} \\
 45 \\
 \underline{45} \\
 0
 \end{array}$$

Answer:

600g

17) A big stone weighs 1.25kg and the small stone weighs 583g. What is the difference in their weights ?

Working:

$$\begin{array}{r}
 1^1 1^4 \\
 1^0 2^1 5^1 0 \\
 - 0.583 \\
 \hline
 0.667
 \end{array}$$

Answer:

0.667 kg

18) A van does 32 miles to a gallon of petrol. How many miles can it do with 18 gallons of petrol ?

Working:

$$\begin{array}{r}
 32 \\
 \times 18 \\
 \hline
 256 \\
 320 \\
 \hline
 576
 \end{array}$$

Answer:

576

1) Round to two significant figures:-

a) 0.00873

0.0087

b) 345 678

350 000

2) $0.8 \times 600 = 480$

3) $0.05 \div 10 = 0.005$

4) $0.9 \times 0.7 = 0.63$

5) $49\ 600 - 7000 = 42\ 600$

6) $8800 \div 80 = 110$

7) $4.5 \times 70 = 315$

8) $(4 \times 8) \div (4 \times 4) = 2$

9) $\frac{1}{5}$ of 550 = 110

10) $7.3 + 4.6 = 11.9$

11) 7.45km + 843m

12) $294.8 \div 11$

13) $1384.7 + 67.4$

Working:

$$\begin{array}{r} 7.450 \\ + 0.843 \\ \hline 8.293 \\ \hline 1 \end{array}$$

Working:

$$\begin{array}{r} 026.8 \\ 11 \overline{) 294.8} \\ \underline{22} \\ 9 \\ \underline{9} \\ 4 \\ \underline{4} \\ 8 \\ \underline{8} \\ 0 \end{array}$$

Working:

$$\begin{array}{r} 1384.7 \\ + 0067.4 \\ \hline 1452.1 \\ \hline 111 \end{array}$$

Answer:

8.293 km

Answer:

26.8

Answer:

1452.1

14) $8750 - 457$

15) $3.36 \div 1.4$

16) 45×257

Working:

$$\begin{array}{r} 6 \\ 8 \\ - 0457 \\ \hline 8293 \end{array}$$

Working:

$$\begin{array}{r} 02.4 \\ 14 \overline{) 33.6} \\ \underline{28} \\ 5 \\ \underline{5} \\ 6 \\ \underline{6} \\ 0 \end{array}$$

Working:

$$\begin{array}{r} 257 \\ \times 45 \\ \hline 1285 \\ 10280 \\ \hline 11565 \\ \hline 1 \end{array}$$

Answer:

8293

Answer:

2.4

Answer:

11565

17) $684 \div 19$

18) If a rectangle has a length of 5.85m and a breadth of 3.8m What size is its perimeter?

19) If a green book weighs 0.36kg and an orange book weighs 0.324kg How much would 2 green and 3 orange books weigh?

Working:

$$\begin{array}{r} 036 \\ 19 \overline{) 684} \\ \underline{57} \\ 114 \\ \underline{114} \\ 0 \end{array}$$

Working:

$$\begin{array}{r} 11.7 \\ + 07.6 \\ \hline 19.3 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 3.8 \\ \times 2 \\ \hline 7.6 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 5.85 \\ \times 2 \\ \hline 11.70 \\ \hline 11 \end{array}$$

Working:

$$\begin{array}{r} 0.324 \\ \times 3 \\ \hline 0.972 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 0.720 \\ + 0.972 \\ \hline 1.692 \end{array}$$

$$\begin{array}{r} 0.36 \\ \times 2 \\ \hline 0.72 \\ \hline 1 \end{array}$$

Answer:

36

Answer:

19.3

Answer:

1.692 kg

1) Put the following numbers in **ascending** order :-

a) 0, -8, 3, -7, 1 -8 -7 0 1 3 b) -12, 7, 2, -6, -1 -12 -6 -1 2 7

2) $0.03 \times 400 = 12$

3) $28.74 \div 10 = 2.874$

4) $0.05 \times 0.3 = 0.015$

5) $\frac{5}{6}$ of 36m = 30m

6) $(6 + 12) \div 3 \times 3 = 2$

7) $3.2 \times 30 = 96$

8) $\frac{1}{4}$ of 1.6L = 0.4L

9) $48000 \div 30 = 1600$

10) $(-4) \times (-8) = 32$

11) 345.3×9

12) $1641.5 \div 7$

13) $3022.9 + 38.7$

Working:

$$\begin{array}{r} 345.3 \\ \times 9 \\ \hline 3107.7 \\ \hline 442 \end{array}$$

Working:

$$7 \overline{) 1641.5} \begin{array}{l} 0234.7 \\ \hline 1641.5 \end{array}$$

Working:

$$\begin{array}{r} 3022.9 \\ + 0038.7 \\ \hline 3061.6 \\ \hline 11 \end{array}$$

Answer: 3107.7

Answer: 234.7

Answer: 3061.6

14) $3800 - 567$

15) $\frac{3}{4}$ of 2732 kg

16) 342×27

Working:

$$\begin{array}{r} 79 \\ 3800 \\ - 0457 \\ \hline 3343 \end{array}$$

Working:

$$4 \overline{) 2732} \begin{array}{l} 0683 \\ \hline 2049 \\ \hline 2 \end{array} \quad \begin{array}{r} 683 \\ \times 3 \\ \hline 2049 \\ \hline 2 \end{array}$$

Working:

$$\begin{array}{r} 342 \\ \times 27 \\ \hline 2394 \\ 6840 \\ \hline 9234 \\ \hline 11 \end{array}$$

Answer: 3343

Answer: 2049

Answer: 9234

17) $777 \div 21$

18) Complete the following patterns

19) 8 marbles weigh 1kg. How much do 4 marbles weigh ?

Working:

$$21 \overline{) 777} \begin{array}{l} 037 \\ \hline 777 \\ \hline 63 \downarrow \\ 147 \\ \hline 147 \\ \hline \end{array}$$

48, 28, 8, -12

-5, 20, 45, 70

-8, -2, 4, 10

Working:

$$8 \overline{) 1025} \begin{array}{l} 0125 \\ \hline 1025 \\ \hline \end{array}$$

$$\begin{array}{r} 125 \\ \times 4 \\ \hline 500 \\ \hline 12 \end{array}$$

Answer: 37

Answer: 500

1) Put the following numbers in **descending** order :-

a) 0.04, 0.4, 0.044 **0.04 0.044 0.4** b) 0.34, 0.04, 0.13 **0.04 0.13 0.34**

2) $2.4 \times 400 = 960$

3) $1.4 - 0.385 = 1.015$

4) $\frac{1}{3}$ of 6321 km = 2107km

5) $0.012 \times 100 = 1.2$

6) $\frac{1}{2}$ of $78 \div 3 = 13$

7) $23 \times 300 = 6900$

8) $\frac{3}{5}$ of £7 = £4.20

9) $78.09 \div 100 = 0.7809$

10) $45 \div (-5) = -9$

11) 893.07×8

12) $1407.6 \div 4$

13) $34.627 + 233.7$

Working:

$$\begin{array}{r} 893.07 \\ \times 8 \\ \hline 7144.56 \\ \hline 72 \quad 5 \end{array}$$

Working:

$$4 \overline{) 1407.6} \begin{array}{l} 351.9 \\ \underline{12} \\ 20 \\ \underline{20} \\ 07 \\ \underline{6} \\ 1 \end{array}$$

Working:

$$\begin{array}{r} 34.627 \\ + 233.700 \\ \hline 268.327 \\ \hline 1 \end{array}$$

Answer:

7144.56

Answer:

351.9

Answer:

268.327

14) $392.11 - 3.452$

15) $75372 \div 6$

16) 273×35

Working:

$$\begin{array}{r} 8^1 \quad 1^0 \quad 1^0 \\ 3 \cancel{9} 2 \cancel{1} 1^0 \\ - 003.452 \\ \hline 388.658 \end{array}$$

Working:

$$6 \overline{) 75372} \begin{array}{l} 12562 \\ \underline{6} \\ 15 \\ \underline{12} \\ 33 \\ \underline{30} \\ 72 \\ \underline{72} \\ 0 \end{array}$$

Working:

$$\begin{array}{r} 273 \\ \times 35 \\ \hline 1365 \\ 8190 \\ \hline 9555 \\ \hline 1 \quad 1 \end{array}$$

Answer:

388.658

Answer:

12562

Answer:

9555

17) $6832 \div 16$

18) If 8 boxes weigh 5 kg
What would 5 boxes weigh ?

19) A rectangle has a length of
4.72 m and a breadth of 3m
What is the area of the rectangle ?

Working:

$$16 \overline{) 6832} \begin{array}{l} 427 \\ \underline{64} \\ 43 \\ \underline{32} \\ 112 \\ \underline{112} \\ 0 \end{array}$$

$$8 \overline{) 5000} \begin{array}{l} 625 \\ \underline{48} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

Working:

$$\begin{array}{r} 4.72 \\ \times 3 \\ \hline 14.16 \\ \hline 2 \end{array}$$

Answer:

427

Answer:

3125g

Answer:

14.16

1) $6.3 \times 400 = 2520$

2) $89 \div 10 = 8.9$

3) $\frac{3}{8}$ of 2.6 kg = 0.975kg

4) $\frac{3}{5}$ of £9 = £5.40

5) $7 - 2.125 = 4.875$

6) $63 \div (-7) = -9$

7) $(-12) \times (-2) = 24$

8) $\frac{3}{20}$ of 140 = 21

9) $-12 - (-3) = -9$

10) 507.23×9

Working:

$$\begin{array}{r} 507.23 \\ \times 9 \\ \hline 4565.07 \\ \hline 622 \end{array}$$

Answer:

4565.07

11) $4101 \div 6$

Working:

$$\begin{array}{r} 0683.5 \\ 6 \overline{) 4101.0} \\ \underline{4} \\ \end{array}$$

Answer:

683.5

12) $563.4 + 32.893$

Working:

$$\begin{array}{r} 563.400 \\ + 032.893 \\ \hline 596.293 \\ \hline 1 \end{array}$$

Answer:

596.293

13) $543.2 - 89.85$

Working:

$$\begin{array}{r} 4 \\ 5 \\ - 0 \\ \hline 4 \end{array}$$

Answer:

453.35

14) $420 - \frac{1}{3}$ of 90×10

Working:

$$\begin{aligned} \frac{1}{3} \text{ of } 90 \times 10 &= 300 \\ 420 - 300 &= 120 \end{aligned}$$

Answer:

120

15) 228×33

Working:

$$\begin{array}{r} 228 \\ \times 33 \\ \hline 684 \\ 6840 \\ \hline 7524 \\ \hline 11 \end{array}$$

Answer:

7524

16) $9414 \div 18$

Working:

$$\begin{array}{r} 0523 \\ 18 \overline{) 9414} \\ \underline{90} \\ \end{array}$$

Answer:

523

17) If $A = 6$ and $B = -4$
Find the values of :-

(a) $2A + B$ $2(6) + (-4)$
 $12 - 4 = 8$

(b) $3(A + B)$ $3(6 + (-4))$
 $3(2) = 6$

(c) $A - 2B$ $6 - 2(-4)$
 $6 + 8 = 14$

Answers:

(a) 8 (b) 6 (c) 14

18) A rectangle has a length of 6.34cm and a breadth of 8cm
What is the area of the rectangle ?

Working:

$$\begin{array}{r} 6.34 \\ \times 8 \\ \hline 50.72 \\ \hline 23 \end{array}$$

Answer:

50.72

1) $4.58 \times 1000 = 4580$

2) $231 \div 100 = 2.31$

3) $\frac{2}{5}$ of 7000 = 2800

4) $0.6 \times 0.9 = 0.54$

5) $8 - 0.35 = 7.65$

6) $(-9) \times (-12) = 108$

7) $(-84) \div 7 = -12$

8) $16 - (-8) = 24$

9) $5600 \div 70 = 80$

10) $3162.5 \div 5$

Working:

$$\begin{array}{r} 0632.5 \\ 5 \overline{) 3162.5} \\ \underline{3162.5} \\ 0 \end{array}$$

Answer:

632.5

11) 4390.03×4

Working:

$$\begin{array}{r} 4390.03 \\ \times 4 \\ \hline 17560.12 \\ \hline 13 \quad 1 \end{array}$$

Answer:

17560.12

12) $38.09 + 456.083$

Working:

$$\begin{array}{r} 038.090 \\ + 456.083 \\ \hline 494.173 \\ \hline 1 \quad 1 \end{array}$$

Answer:

494.173

13) $3000 - 289.4$

Working:

$$\begin{array}{r} 2999 \\ 3000.0 \\ - 289.4 \\ \hline 2710.6 \end{array}$$

Answer:

2710.6

14) $393.7 - 16.52$

Working:

$$\begin{array}{r} 8 \quad 6 \\ 393.70 \\ - 16.52 \\ \hline 377.18 \end{array}$$

Answer:

377.18

15) 326×44

Working:

$$\begin{array}{r} 326 \\ \times 44 \\ \hline 1304 \\ 13040 \\ \hline 14344 \end{array}$$

Answer:

14344

16) $8736 \div 14$

Working:

$$\begin{array}{r} 0624 \\ 14 \overline{) 8736} \\ \underline{84} \quad \downarrow \\ 33 \quad \downarrow \\ \underline{28} \quad \downarrow \\ 56 \\ \underline{56} \\ 0 \end{array}$$

Answer:

624

17) What comes next in the following patterns ?

(a) 3, 1.5, 0

(b) 7.2, 4.1, 1

(c) 0.75, 0.5, 0.25

18) If 20 boxes weigh 8kg altogether, how heavy would 13 boxes be ?

Working:

$8 \div 20 = 0.4$

$0.4 \times 13 =$

$0.4 \times 10 = 4$

$0.4 \times 3 = 1.2$

$4 + 1.2 = 5.2\text{kg}$

Answer:

5.2kg

1) 40% of 8 kg = **3.2kg**

2) $4.3 \times 500 =$ **2150**

3) $0.87 \div 10 =$ **0.087**

4) $34 \times 1000 =$ **34000**

5) $1440 \div 120 =$ **12**

6) $(-56) \div 8 =$ **-7**

7) $110 \div (-10) =$ **-11**

8) $\frac{5}{6}$ of 3.6m = **3m**

9) 10% of £3 = **£0.30**

10) $8922.7 + 349.6$

Working:

$$\begin{array}{r} 8922.7 \\ + 0349.6 \\ \hline 9272.3 \\ \hline 1 \quad 1 \quad 1 \end{array}$$

Answer:

9272.3

11) 459.71×8

Working:

$$\begin{array}{r} 459.71 \\ \times 6 \\ \hline 2758.26 \\ \hline 3 \quad 5 \quad 4 \end{array}$$

Answer:

2758.26

12) $2991.1 \div 7$

Working:

$$7 \overline{) \begin{array}{r} 0427.3 \\ 2991.1 \end{array}}$$

Answer:

427.3

13) $\frac{2}{3}$ of 819

Working:

$$\begin{array}{r} 273 \\ 3 \overline{) 819} \\ \hline 819 \\ \hline 2 \end{array} \quad \begin{array}{r} 273 \\ \times 3 \\ \hline 819 \\ \hline 2 \end{array}$$

Answer:

819

14) $4000 - 253.9$

Working:

$$\begin{array}{r} 3999 \\ 4000.0 \\ - 253.9 \\ \hline 3746.1 \end{array}$$

Answer:

3746.1

15) 745×38

Working:

$$\begin{array}{r} 745 \\ \times 38 \\ \hline 5960 \\ 22350 \\ \hline 28310 \\ \hline 1 \quad 1 \end{array}$$

Answer:

28310

16) $7222 \div 23$

Working:

$$\begin{array}{r} 0314 \\ 23 \overline{) 7222} \\ \hline 69 \downarrow \\ 32 \\ 23 \downarrow \\ 92 \\ 92 \\ \hline \end{array}$$

Answer:

314

17) Which is biggest ?

(a) 0.3 31% $\frac{3}{11}$

(b) 75% $\frac{7}{8}$ 0.74

(c) 0.66 65% $\frac{3}{5}$

Answer:

(a) **31%** (b) $\frac{7}{8}$ (c) **0.66**

18) A basket of cost £65 last year. This year it has gone up by 15%. How much does the basket cost now ?

Working:

10% 65 ÷ 10 = £6.50

5% £6.50 ÷ 2 = £3.25

15% = £9.75

Answer:

£9.75

1) Round the following number to **2 significant figures** :-

a) 38 782

39000

b) 0.0874

0.087

2) $3.3 \times 900 = 2970$

3) $69.15 \times 10 = 691.5$

4) $38.32 \div 10 = 3.832$

5) $3800 \div 190 = 20$

6) $\frac{1}{2}$ of $36 \div 3 = 6$

7) 80% of 250g = 200g

8) 30litres + 5% = 33L

9) 60% of 35kg = 21kg

10) $81 \div (-9) = -9$

11) 324.7×6

Working:

$$\begin{array}{r} 324.7 \\ \times 6 \\ \hline 1948.2 \\ \hline 124 \end{array}$$

Answer:

1948.2

12) $2066.4 \div 8$

Working:

$$\begin{array}{r} 0258.3 \\ 8 \overline{) 2066.4} \\ \underline{20} \\ 6 \\ \underline{6} \\ 0 \\ \underline{0} \\ 6 \\ \underline{6} \\ 0 \\ \underline{0} \\ 4 \end{array}$$

Answer:

258.3

13) $34.87 + 18.236$

Working:

$$\begin{array}{r} 34.870 \\ + 18.236 \\ \hline 53.106 \\ \hline 111 \end{array}$$

Answer:

53.106

14) $90.83 - 48.35$

Working:

$$\begin{array}{r} 8 \\ 9^1 0.8^1 3 \\ - 48.35 \\ \hline 42.48 \end{array}$$

Answer:

42.48

15) $(3 + 2)^2 + 18 \div 6$

Working:

$$\begin{array}{l} 5^2 + 18 \div 6 \\ 25 + 18 \div 6 \\ 25 + 3 = 28 \end{array}$$

Answer:

28

16) 321×27

Working:

$$\begin{array}{r} 321 \\ \times 27 \\ \hline 2247 \\ 6420 \\ \hline 8667 \end{array}$$

Answer:

8667

17) $7392 \div 16$

Working:

$$\begin{array}{r} 0487 \\ 16 \overline{) 7392} \\ \underline{62} \\ 139 \\ \underline{128} \\ 112 \\ \underline{112} \\ 0 \end{array}$$

Answer:

487

18) A 240g block of ice lost 25% of its weight due to melting. What is its new weight?

Working:

$$\begin{array}{l} 25\% = \frac{1}{4} \\ 240 \div 4 = 60\text{g} \\ 240 - 60 = 180\text{g} \end{array}$$

Answer:

180g

19) A rectangle has a length of 6.5 m and a breadth of 8.3m. What is the perimeter of the rectangle?

Working:

$$\begin{array}{r} 6.5 \\ + 6.5 \\ + 8.3 \\ \hline 8.3 \\ \hline 29.6 \end{array}$$

Answer:

29.6

1) Round the following number to 1 decimal place :-

a) 3.873

3.9

b) 15.029

15.0

2) $2^3 = 8$

3) $2.5 \times 4000 = 10000$

4) $17.02 \div 1000 = 0.01702$

5) $\sqrt{81} = 9$

6) $(3 \times 4) \div 2 + 4 = 10$

7) $\frac{5}{8} + \frac{1}{4} = \frac{7}{8}$

8) $0.3 \times 0.6 = 0.18$

9) 75% of 328g = 246g

10) $(-12) - (-7) = -5$

11) 383.2×4

Working:

$$\begin{array}{r} 383.2 \\ \times 4 \\ \hline 1532.8 \\ \hline 3 \quad 1 \end{array}$$

Answer:

1532.8

12) $193.5 \div 5$

Working:

$$\begin{array}{r} 038.7 \\ 5 \overline{) 193.5} \\ \underline{15} \\ 43 \\ \underline{40} \\ 35 \\ \underline{35} \\ 0 \end{array}$$

Answer:

38.7

13) $35.51 - 19.763$

Working:

$$\begin{array}{r} 2 \quad 14 \quad 14 \quad 10 \\ 35.51 \\ - 19.763 \\ \hline 15.747 \end{array}$$

Answer:

15.747

14) $17.84 + 39.94$

Working:

$$\begin{array}{r} 17.84 \\ + 39.94 \\ \hline 57.78 \\ \hline 1 \quad 1 \end{array}$$

Answer:

57.78

15) 3287×9

Working:

$$\begin{array}{r} 3287 \\ \times 9 \\ \hline 29583 \\ \hline 2 \quad 7 \quad 6 \end{array}$$

Answer:

29583

16) 663×24

Working:

$$\begin{array}{r} 663 \\ \times 24 \\ \hline 2652 \\ 13260 \\ \hline 15912 \\ \hline 1 \end{array}$$

Answer:

15912

17) $8136 \div 18$

Working:

$$\begin{array}{r} 0452 \\ 18 \overline{) 8136} \\ \underline{72} \\ 93 \\ \underline{90} \\ 36 \\ \underline{36} \\ 0 \end{array}$$

Answer:

462

18) Put brackets in to make the answer correct.

$$(3 \times 6) \div (2 + 1) = 6$$

19) A square has an area of 6.25 cm^2 . What is the perimeter of the square?

Working:

$$2.5 \times 2.5 = 6.25$$

$$\text{Perimeter} = 2.5 \times 4$$

$$= 10 \text{ cm}$$

Answer:

10 cm

1) $61 \times 30 = 1830$

2) $6.3 + 6.8 = 13.1$

3) $3600 \div 90 = 40$

4) $\frac{1}{5}$ of 1000 = 200

5) $3 \times 4^2 = 48$

6) 30% of 150g = 45g

7) $9 \times 3 + (6 - 1) = 32$

8) $\frac{3}{5} + \frac{3}{10} = \frac{9}{10}$

9) $(-7) \times (-8) = 56$

10) $15.38 + 9.872$

Working:

$$\begin{array}{r} 15.380 \\ + 09.872 \\ \hline 24.252 \\ \hline 1 \quad 1 \quad 1 \end{array}$$

Answer:

24.252

11) 90% of 60 000 m

Working:

$$\begin{aligned} 90\% &= \frac{9}{10} \\ \frac{9}{10} \text{ of } 60\,000 \\ 60\,000 \div 10 &= 6000 \times 9 \\ &= 54\,000 \end{aligned}$$

Answer:

54 000m

12) 673.8×7

Working:

$$\begin{array}{r} 673.8 \\ \times 7 \\ \hline 4716.6 \\ \hline 5 \quad 2 \quad 5 \end{array}$$

Answer:

4716.6

13) $38.92 - 16.5$

Working:

$$\begin{array}{r} 38.92 \\ - 16.50 \\ \hline 22.42 \\ \hline \end{array}$$

Answer:

22.42

14) $12 \div 3 + 6 \times 2^2$

Working:

$$\begin{aligned} 12 \div 3 + 6 \times 2^2 \\ 12 \div 3 + 6 \times 4 \\ 4 + 24 = 28 \end{aligned}$$

Answer:

28

15) 437×46

Working:

$$\begin{array}{r} 437 \\ \times 46 \\ \hline 2622 \\ 17480 \\ \hline 20102 \\ \hline 1 \quad 1 \quad 1 \end{array}$$

Answer:

20102

16) Change the following into improper fractions

Working:

(a) $3\frac{1}{4}$ (b) $7\frac{2}{5}$ (c) $4\frac{3}{8}$

Answers:

(a) $\frac{13}{4}$ (b) $\frac{37}{5}$ (c) $\frac{35}{8}$

17) In a classroom the ratio of boys to girls is 1 : 3. There are 8 boys in the class, how many girls are there ?

Working:

$$\begin{array}{l} \text{boys : girls} \\ 1 : 3 \\ 8 : 24 \end{array}$$

Answer:

24 girls

18) 35 % of £260

Working:

$$\begin{aligned} 10\% \text{ of } \pounds 260 &= \pounds 26 \\ 30\% &= 3 \times 26 = \pounds 78 \\ 5\% &= \pounds 26 \div 2 = \pounds 13 \\ 35\% &= \pounds 78 + \pounds 13 = \pounds 91 \end{aligned}$$

Answer:

£ 91

1) $34 \times 20 = 680$

2) $20 - 12 \div (4 + 2) = 18$

3) $96000 \div 8000 = 12$

4) $-6 - (-2) = -4$

5) $20 \div (-4) = -5$

6) 70% of 2kg = 1.4kg

7) $38.99 \times 100 = 3899$

8) $33\frac{1}{3}\%$ of 750m = 250m

9) $\frac{1}{4} - \frac{1}{8} = \frac{1}{8}$

10) 8734×8

Working:

$$\begin{array}{r} 8734 \\ \times 8 \\ \hline 69872 \\ \hline 523 \end{array}$$

Answer:

69872

11) $\frac{1}{2}\%$ of £850

Working:

$$\begin{aligned} &1\% \text{ of } \pounds 850 \\ &= \pounds 850 \div 100 \\ &= \pounds 8.50 \end{aligned}$$

$\frac{1}{2}\%$ of £850 = £4.25

Answer:

£4.25

12) $1489.3 + 324.65$

Working:

$$\begin{array}{r} 1489.30 \\ + 0324.65 \\ \hline 1813.95 \\ \hline 11 \end{array}$$

Answer:

1813.95

13) 3% of £42

Working:

3% of £42

$$\begin{aligned} 1\% \text{ of } \pounds 42 &= \pounds 42 \div 100 \\ &= \pounds 0.42 \end{aligned}$$

$3\% = \pounds 0.42 \times 3 = \pounds 1.26$

Answer:

£1.26

14) $18000 - 983$

Working:

$$\begin{array}{r} 799 \\ \cancel{1}8\cancel{0}\cancel{0}\cancel{0} \\ - 00983 \\ \hline 17017 \end{array}$$

Answer:

17017

15) 547×54

Working:

$$\begin{array}{r} 547 \\ \times 54 \\ \hline 2188 \\ 22350 \\ \hline 24538 \\ \hline 1 \end{array}$$

Answer:

24538

16) Change the following into mixed numbers

Working:

(a) $\frac{17}{2}$ (b) $\frac{49}{9}$ (c) $\frac{51}{7}$

Answers:

(a) $8\frac{1}{2}$ (b) $5\frac{4}{9}$ (c) $7\frac{2}{7}$

17) Share 27 sweets between Trini and in the ratio of 2:1 so that Heather gets the larger share.

Working:

$$\text{Heather : Trini} \\ 2 : 1$$

$\frac{2}{3}$ Heather = 18 sweets

$\frac{1}{3}$ Trini = 9 sweets

Answer:

$$\begin{array}{ll} \text{Heather} & 18 \text{ sweets} \\ \text{Trini} & 9 \text{ sweets} \end{array}$$

18) Nine packets of laminating Sheets costs £7.29. How much would ten packets cost?

Working:

$$9 \overline{) 0.81} \\ \underline{7.2} \\ 9$$

$\pounds 0.81 \times 10 = \pounds 8.10$

Answer:

£8.10

1) $8^3 = 512$

4 $\sqrt[3]{27} = 3$

7) $987 \div 10 = 98.7$

10) 841.1×9

Working:

$$\begin{array}{r} 841.1 \\ \times 9 \\ \hline 7569.9 \\ \hline 3 \end{array}$$

Answer:

7569.9

13) $237.42 \div 6$

Working:

$$6 \overline{) \begin{array}{r} 039.57 \\ \underline{22} \\ 23 \\ \underline{23} \\ 037.42 \\ \underline{37} \\ 037.42 \\ \underline{37} \\ 000 \end{array}}$$

Answer:

39.57

16) If food prices have risen by 8% over the last year, what would a basket of food costing £85 last year cost now?

Working:

$1\% \text{ of } £85 = £0.85$

$8\% = £0.85 \times 8 = £6.80$

$£85 + £6.80 = £91.80$

Answer:

$£91.80$

2) $9 \div 3 + 4 = 7$

5) $48 \div (-6) = -8$

8) $\frac{4}{5}$ of 85 kg = 68 kg

11) 45% of £600

Working:

$10\% \text{ of } £600 = £60$

$40\% = 4 \times £60 = £240$

$5\% = £60 \div 2 = £30$

$40\% \text{ of } £600 = £270$

Answer:

$£270$

14) $9000 - 342$

Working:

$$\begin{array}{r} 899 \\ 9^1 0^1 0^1 0^1 \\ - 0342 \\ \hline 8658 \end{array}$$

Answer:

8658

3) $40 \times 50 \times 60 = 120000$

6) 15% of 50g = 7.5g

9) $92 \div 40 = 2.3$

12) $27.73 + 162.5$

Working:

$$\begin{array}{r} 027.73 \\ + 162.50 \\ \hline 190.23 \\ \hline 1 \end{array}$$

Answer:

190.23

15) 239×52

Working:

$$\begin{array}{r} 239 \\ \times 52 \\ \hline 478 \\ 11950 \\ \hline 12428 \\ \hline 1 \end{array}$$

Answer:

12428

17) Share 240 sweets into two bags in the ratio 3:2. How many sweets will be in each bag?

Working: $3 : 2$

$\frac{3}{5} : \frac{2}{5}$

$240 \div 5 = 48$

$48 \times 3 = 144$

$48 \times 2 = 96$

Answer:

Bag 1: 144 Bag 2: 96

18)

$(8-2) \times 7 + 6^2 \div 12$

Working:

$(8-2) \times 7 + 6^2 \div 12$

$6 \times 7 + 6^2 \div 12$

$6 \times 7 + 36 \div 12$

$42 + 3 = 45$

Answer:

45

1) $9^2 = 81$

4 $\sqrt{49} = 7$

7) $12.33 \times 10 = 123.3$

10) 439.02×6

Working:

$$\begin{array}{r} 439.02 \\ \times 6 \\ \hline 2634.12 \\ \hline 2 \quad 5 \quad 1 \end{array}$$

Answer:

2634.12

2) $4 + 20 \div 4 = 9$

5) $144 \div (-12) = -12$

8) $762 \div 100 = 7.62$

11) 3% of £7000

Working:

1% of £7000 = £70

3% = 3 x 70 = £210

Answer:

210

3) $4200 \div 70 = 60$

6) 35% of 40m = 14m

9) $£34 - 5\% = £32.30$

12) $23.61 + 246.8$

Working:

$$\begin{array}{r} 023.61 \\ + 246.80 \\ \hline 270.41 \\ \hline 1 \quad 1 \end{array}$$

Answer:

270.41

13) $3168.2 \div 7$

Working:

$$\begin{array}{r} 0452.6 \\ 7 \overline{) 3168.2} \\ \underline{33} \\ 31 \\ \underline{31} \\ 6 \\ \underline{61} \\ 8 \\ \underline{84} \\ 2 \end{array}$$

Answer:

452.6

14) $4050 - 837$

Working:

$$\begin{array}{r} 3 \\ 4^1 0^4 5^1 0^1 \\ - 0837 \\ \hline 3213 \end{array}$$

Answer:

3213

15) 675×67

Working:

$$\begin{array}{r} 675 \\ \times 67 \\ \hline 4725 \\ 40500 \\ \hline 45225 \\ 1 \end{array}$$

Answer:

45225

16) $19458 \div 46$

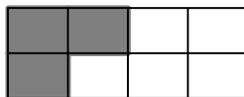
Working:

$$\begin{array}{r} 00423 \\ 46 \overline{) 19458} \\ \underline{184} \\ 105 \\ \underline{92} \\ 138 \\ \underline{138} \\ 0 \end{array}$$

Answer:

423

17) If the whole cake weighs 1.28kg, how heavy is the shaded part?



Working:

1 part = $1.28 \div 8 = 0.16$

3 parts = $0.16 \times 3 = 0.48\text{kg}$

Answer:

0.48kg

18) $7 - \frac{2}{7}$

Give your answer as a mixed number

Working:

$7 - \frac{2}{7}$

$\frac{7}{1} - \frac{2}{7}$

$\frac{49}{7} - \frac{2}{7}$

$\frac{47}{7} = 6\frac{5}{7}$

Answer:

$6\frac{5}{7}$

1) $13^2 = 169$

4) $\sqrt{25} = 5$

7) $87 \div 1000 = 0.087$

10) $673.88 + 34.125$

Working:

$$\begin{array}{r} 673.880 \\ + 034.125 \\ \hline 707.005 \\ \hline \begin{array}{ccc} 1 & 1 & 1 \end{array} \end{array}$$

Answer:

707.005

2) $6 + 8 \times 3 = 30$

5) $34 \div (-2) = -17$

8) $6300 \div 900 = 7$

11) 4% of £8000

Working:

1% of £8000 = £80

4% = 4 x 80 = £320

Answer:

£320

3) $98.02 \times 1000 = 98020$

6) 25% of 48g = 12g

9) £67 - 10% = £60.30

12) 5403.2×8

Working:

$$\begin{array}{r} 5403.2 \\ \times 8 \\ \hline 43225.6 \\ \hline \begin{array}{ccc} 3 & 2 & 1 \end{array} \end{array}$$

Answer:

43225.6

13) $1807.2 \div 3$

Working:

$$\begin{array}{r} 0602.4 \\ 3 \overline{) 1807.2} \\ \underline{3} \\ 18 \\ \underline{18} \\ 007.2 \\ \underline{06} \\ 007.2 \\ \underline{06} \\ 000.0 \end{array}$$

Answer:

602.4

14) $35000 - 554$

Working:

$$\begin{array}{r} 3499 \\ \cancel{3} \cancel{5} \cancel{0} \cancel{0} \\ - 00554 \\ \hline 34446 \end{array}$$

Answer:

34446

15) 437×48

Working:

$$\begin{array}{r} 437 \\ \times 48 \\ \hline 3496 \\ 17480 \\ \hline 20976 \\ \hline \begin{array}{cc} 1 & 1 \end{array} \end{array}$$

Answer:

20976

16) $183.27 - 43.09$

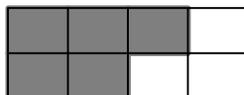
Working:

$$\begin{array}{r} 183.27 \\ - 43.09 \\ \hline 140.16 \end{array}$$

Answer:

140.16

17) If the whole cake weighs 1.44kg, how heavy is the shaded part?



Working:

1 part = $1.44 \div 8 = 0.18$

5 parts = $0.18 \times 5 = 0.9$ kg

Answer:

0.9 kg

18) $8 - \frac{2}{5}$

Working:

$8 - \frac{2}{5}$

$\frac{8}{1} - \frac{2}{5}$

$\frac{40}{5} - \frac{2}{5}$

$\frac{38}{5} = 7\frac{3}{5}$

Answer:

$7\frac{3}{5}$

1) $0.4 \times 0.9 = 0.36$

2) $9 + 24 \div 6 = 13$

3) $8 \div 1000 = 0.008$

4) $\sqrt{144} = 12$

5) $(-11) \times (-12) = 132$

6) 70% of 190kg = 133kg

7) $72000 \div 900 = 80$

8) $(-169) \div 13 = -13$

9) $268 - 57 = 211$

10) 382.4×8

Working:

$$\begin{array}{r} 382.4 \\ \times 8 \\ \hline 3059.2 \\ \hline 613 \end{array}$$

Answer:

3059.2

11) $\frac{9}{11}$ of 6820 km

Working:

$$\begin{array}{r} 0620 \\ 11 \overline{) 6820} \\ \underline{620} \\ 620 \\ \underline{620} \\ 0 \end{array}$$

Answer:

5580

12) 7% of £19 000

Working:

$$\begin{aligned} 1\% \text{ of } \pounds 19\,000 &= \pounds 190 \\ 7\% &= \pounds 190 \times 7 = \pounds 1330 \end{aligned}$$

Answer:

£ 1330

13) $3898.2 \div 6$

Working:

$$6 \overline{) 3898.2}$$

Answer:

649.7

14) $14.8 + 395.8$

Working:

$$\begin{array}{r} 14.8 \\ + 395.8 \\ \hline 410.6 \\ \hline 111 \end{array}$$

Answer:

410.6

15) 354×28

Working:

$$\begin{array}{r} 354 \\ \times 28 \\ \hline 2832 \\ 7080 \\ \hline 9912 \\ \hline 1 \end{array}$$

Answer:

9912

16) $7896 \div 14$

Working:

$$14 \overline{) 7896}$$

Answer:

564

17) Share 180 sweets in the ratio of 2 : 3

Working:

$$\begin{array}{l} 2 : 3 \\ \frac{2}{5} : \frac{3}{5} \end{array}$$

$180 \div 5 = 36 \times 2 = \pounds 72$

$180 \div 5 = 36 \times 3 = \pounds 108$

£ 72 : £ 108

Answer:

£ 72 : £ 108

18) There is a 30% discount on a handbag costing £45. How much does the bag cost in the sale ?

Working:

$$\begin{aligned} \pounds 45 \div 10 &= \pounds 4.50 \times 3 \\ &= \pounds 13.50 \end{aligned}$$

$\pounds 45 - \pounds 13.50 = \pounds 31.50$

Answer:

£ 31.50