

## Practice Unit Assessment (1) for National 4 Numeracy

1. I have just bought a new washing machine. The price was £400 + VAT.



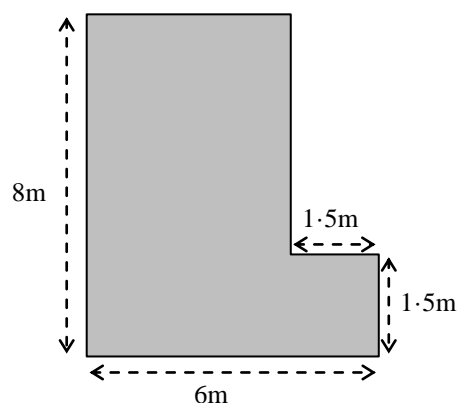
VAT is charged at 20%.

What was the total price of the washing machine?

2. An empty container weighs 120g. When 50 lollipops were put in it the weight was 870g.  
What is the weight of one lollipop?
3. Anne is going to Malta. How many euros will she get for £150 when the exchange rate is 1.18 euros to a pound?
4. Complete the following table which shows departure and arrival times for different bus journeys.

Depart	Arrive	Time taken
0315	0735	
1105		3h 15 min
	2100	4h 25 min

5. The diagram shows an L – shaped room which is made up from two rectangles.



A decorative border has to be put round the room. There is 25 metres on the roll.

Is the roll long enough for the room?

Justify your answer by calculation.

6. A car travels at a constant speed of 63 mph for 20 minutes.



How far does the car travel in this time?

7. After a lottery win of £350 000, the money was divided between the two winners, Charlie and Fred, in the ratio 3 : 4.

Fred received £200 000.

Is this the correct amount?

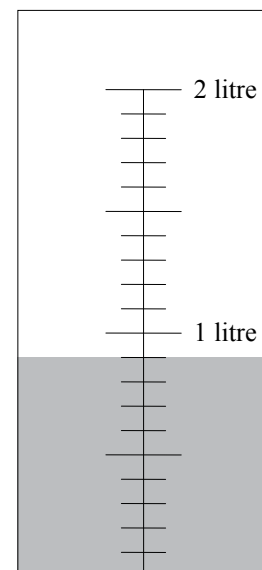
Justify your answer by calculation.

8. A liquid is warmed from  $-6^{\circ}\text{C}$  to  $-2^{\circ}\text{C}$ .

By how many degrees has its temperature risen?

9. Some water has been added to this measuring jar.

How much more water is needed to fill the jar to 1.5 litres?



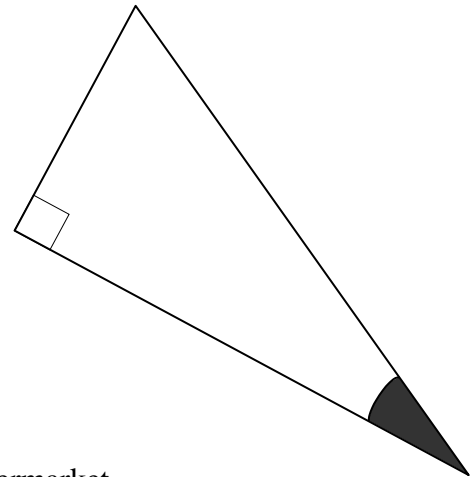
10. Two shops are selling the same holiday. They are offering these for sale with different deals.

Sun Holidays	Holiday Sun
Deposit £120	Deposit £170
Six payments of £67.80	Six payments of £58.30

Which shop has the cheaper deal?  
Justify your answer by calculation.

11. This triangle is right-angled.

- (a) Measure the length of the longest side.  
(b) Measure the size of the shaded angle.



12. Carrots are being sold in different sizes of packet in the supermarket.

Pack A contains 400g of carrots and costs £1.20

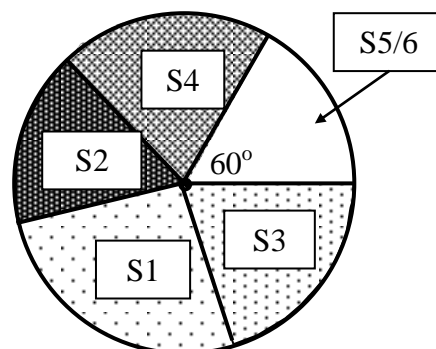
Pack B contains 200g of carrots and costs 65p

Fiona needs to buy at 1000g of carrots as cheaply as she can.

How many packs of each size should she buy?

How much will this cost?

13. The number of pupils in each year group in a secondary school was recorded and this pie chart drawn.



There are 1200 pupils in the school.

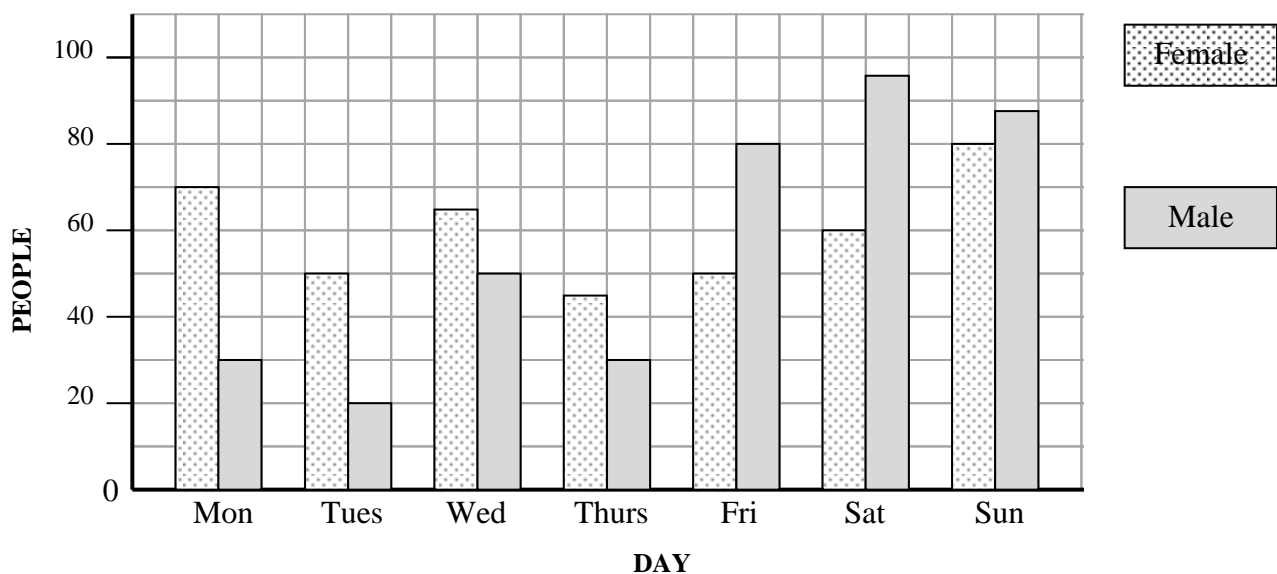
How many pupils were there in S5/6?

14. The table below shows the amount of yearly interest a selection of banks will pay to a customer on savings.

Bank	Less than £1000	£1000 to £5000 (inc)	Between £5000 and £10000	£10000 or more
A	0.5%	0.6%	0.8%	1%
B	0.6%	0.7%	0.9%	1.1%
C	0.5%	0.8%	0.8%	1%
D	0.5%	0.6%	0.7%	0.9%

For a savings amount of £6000, which bank would pay the most interest?

15. The number of people using a gym each day was recorded for a week and this compound bar chart was drawn.



- (a) How many males used the gym on Friday?
- (b) Compare the use of the gym by both males and females across the week.

16. Three mobile phone companies each have a contract available at the same price.

	<b>Company A</b>	<b>Company B</b>	<b>Company C</b>
Calls (minutes)	100	120	130
Texts	1000	750	800
Internet (Mb)	150	160	140

Amina is looking for a mobile phone contract which will give her 90 minutes of calls, 900 texts, and 140Mb of internet use.

Which company's plan would be best for her?

17. Tickets are being sold for two different prizes at a fayre.

Corinne has tickets for both.

80 tickets have been sold for prize A and 120 tickets have been sold for prize B.

Corinne has 5 tickets for prize A and 8 tickets for prize B.

Which prize has Corinne the better chance of winning?

Justify your answer by calculation.

18. Sally scored the following marks in three of her tests.

Maths: 25 out of 40

English: 32 out of 50

Science: 38 out of 60

In which subject did she do best in?

Justify your answer by calculation.

*End of Question Paper*

**Practice Unit Assessment (1) for Numeracy****Marking Scheme**

		Response
<b>1</b>	Percentage calculation Addition	20% of 400 = 800 £480
<b>2</b>	Subtraction Division	$870 - 120 = 750$ $750/50 = 15 \text{ g}$
<b>3</b>	Multiplication	$150 \times 1.18 = 177 \text{ euros}$
<b>4</b>	Subtraction Addition Subtraction	4 hours 20 mins 1420 1635
<b>5</b>	Perimeter calculation	$P = 28 \text{ m}$ #No, $28 \text{ m} > 25 \text{ m}$
<b>6</b>	Division	$63/3 = 21 \text{ miles}$
<b>7</b>	Ratio/proportion Ratio/proportion	$350000/7 = 50000$ $50000 \times 4 = 200000$ # Yes, correct
<b>8</b>	Difference	4 degrees
<b>9</b>	-	#600 ml
<b>10</b>	Decimal multiplication	406.80 or 349.80 526.80 or 519.80 #Holiday Sun less
<b>11</b>	- -	#Length measure 7.6 cm (nearest 0.1cm) #Angle measure $26^\circ (\pm \text{one degree})$
<b>12</b>	-	# 2 of pack A and 1 of size B £3.05
<b>13</b>	Fraction	#60/360 of 1200 200
<b>14</b>	-	# Bank B

<b>15</b>	-	# 80 males # More females use the gym from Monday to Thursday but more males use it at the weekend.
<b>16</b>	-	# Company A is most suitable
<b>17</b>	-	#Prize B Evidence of $5/80 = 0.0625$ and $8/120 = 0.0666\dots$ or equivalent
<b>18</b>	-	# English Evidence of $25/40 = 0.625$ $32/50 = 0.64$ $38/60 = 0.63$ or equivalent