

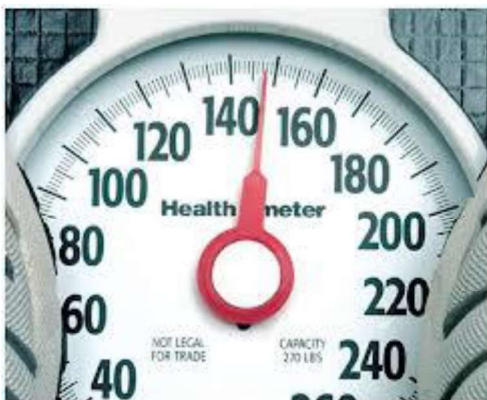
## National 5 Numeracy (National 5)

### Practice Assessment 1

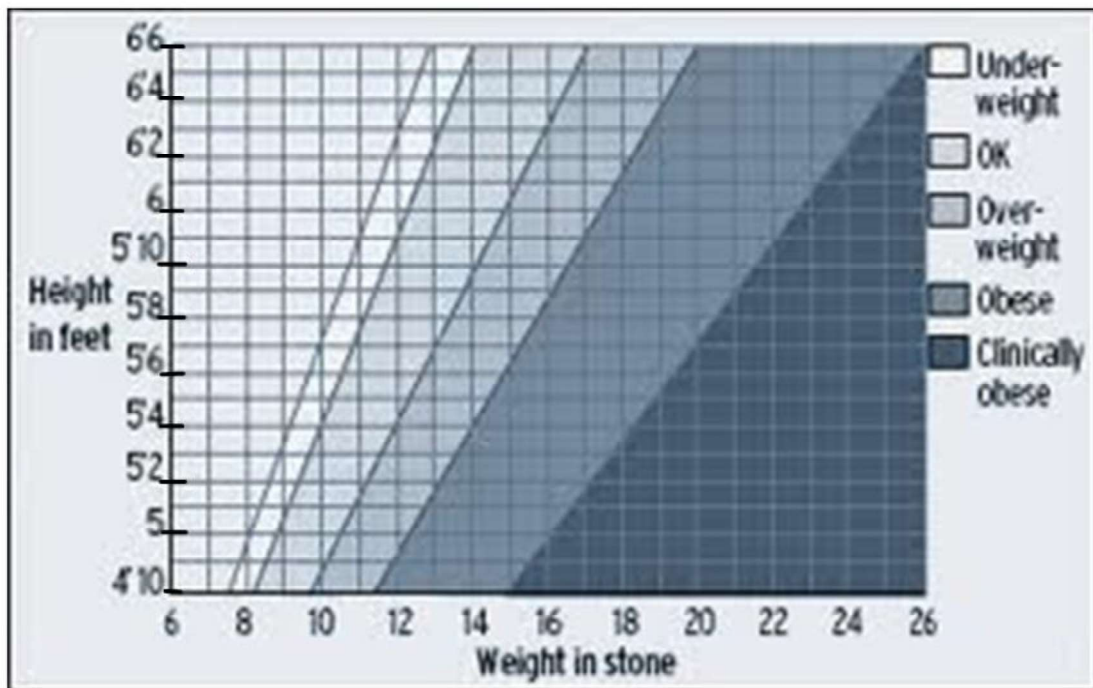
1. A house which cost £96000 appreciated in value each year by 1.6%  
Calculate the value of the house after 4 years.  
Give your answer to **3 significant figures**
2. Three friends Steve, Jake and Jodie shared a pizza. Steve ate  $\frac{2}{5}$  of the pizza and Jake ate  $\frac{1}{4}$ .  
What fraction did Jodie eat?
3. A car park holds 480 cars when full. The probability of a car in the car park being silver is 0.375.  
On Friday morning the car park was full and Jamie counted 164 silver cars. Is this more or less than expected?

**Justify your answer by calculation**

4. What are the readings on these scales?



5. Graph of height against weight (BMI)

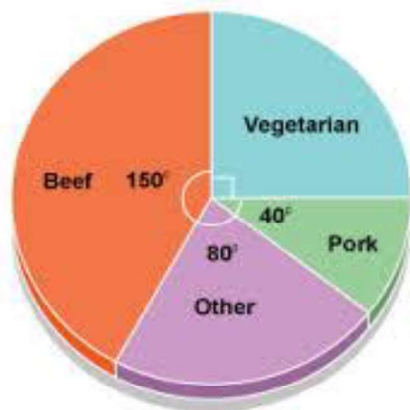


Explain what the graph tells about the following people

- a) Jamie is 5' 10" and weighs 13 stone
- b) Kate is 5' 6" and weighs 14 stone

6. a) A mortar mixture is made of cement, sand and water in the ratio 1 : 2 : 4. If 80kg of cement is used, how much sand and water is required?
- b) An alloy consists of copper, zinc and tin in the ratio 2 : 3 : 5. Find the amount of each metal in 75 kg of the alloy.

7.



The pie chart represents the choices made from a menu at a function.

If 24 people chose pork, how many people chose the beef dish?

8. The exam marks of classes 4A and 4B are shown in the back to back stem and leaf diagram below.

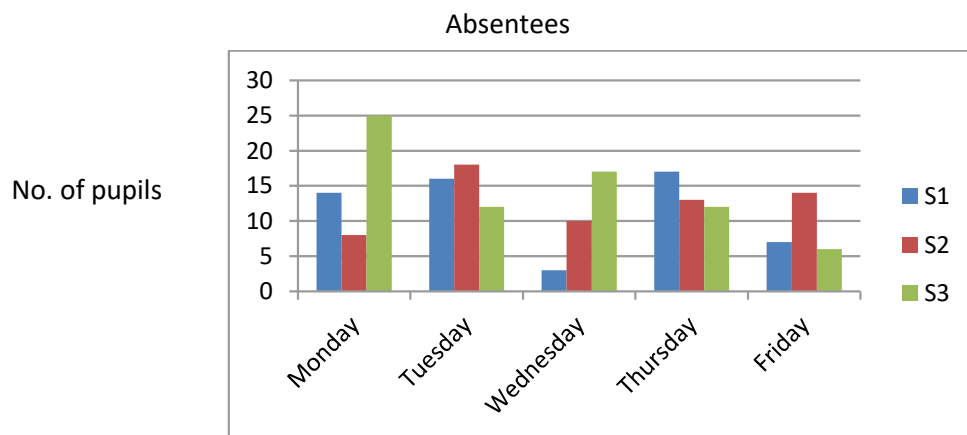
4A	5	4B	
9 6 4	5	1 5	
8 7 5 2	6	4 8	
4 1	7	4 6 6 7	
1 1 0	8	6 6 6 6	
2 2 1	9	4 6 7 8 9 9	

5 | 1 represents 51

n = 15                  n = 18

- a) What was the highest mark in class 4B
  - b) Calculate the mean mark for class 4A
  - c) If the mean mark for class 4B was 81.6 which class did better in the test?
- You must justify your answer**

9.



- a) On which day was there the least number of S2 pupils absent?
- b) By estimating absences for each day, on which day were there least absences altogether?

10. Bottles of mineral water are packed in boxes of 75.

- a) A local supermarket has ordered 25 boxes of mineral water. How many bottles has the shop ordered?
- b) - Each bottle holds 290 ml  
 - 1 litre of water weighs 1 kilogram  
 - Each empty bottle weighs 30g  
 What is the total weight to be delivered?
- c) If the delivery van can take a maximum load of 650kg, can this order be delivered in one van load?

**Use your calculations to explain your answer.**

11. Mike goes on holiday to Australia. He changes £1200 into Australian dollars.

- a) If the rate of exchange is **£ 1 = 1.62 Australian dollars** how many Australian dollars will Mike receive?
- b) While on holiday Mike spends 1450 dollars. How many dollars does he have left?
- c) When he returns home Mike changes the remaining dollars back into pounds at a rate of **£ 1 = 1.71 Australian dollars**. How much will Mike get to the nearest pound?

12.

- a) A train leaves Perth at 0251 and arrives at Stirling at 0440. How long did the journey take?
- b) Jenny flew from Edinburgh to Venice for a short break. The plane left at 2257 local time and arrived in Venice at 0209 local time. If the time in Venice is one hour ahead of the time in Britain, how long was the flight?

13. Mr and Mrs Robertson and their two children Ben aged 2 and Becky aged 8 are wanting to go to Spain for two weeks during the summer holidays.

They have started looking at the price of flights with ScotAir which flies from Edinburgh to Malaga.

The table below shows the costs of flights at that time of year.

Return Flight Costs	
Adult (over 18)	£364
Child (3 – 17)	£320
Infant (under 3)	£145

Extra Costs	
Hand Luggage	No charge
1 case	£50
Seat reservation	£ 8 per person

INSURANCE (per person)				
	0 – 5 days	6 – 10 days	11 – 14 days	15 – 21 days
Adults (over 18)	£ 8.50	£ 11.40	£ 13.50	£ 15.20
Child (3-17)	£ 4.25	£ 5.70	£ 6.75	£ 7.60
Infants(under 3)	-	-	-	-
Family (2 adults and up to 4 children)	£18	£24. 50	£ 28.70	£ 32.30

**A**

**charge of £ 19.50 will be added if payment is made by credit card**

- a) The Robertsons choose to fly with this airline. What is the total cost for flights only?
- b) They also:
  - Pay for 3 cases
  - Reserve seats for everyone
  - Pay family insurance for their stay
  - Pay by credit card

If they had budgeted £ 1500 for their flights, is the total cost within their budget?