

S3 BLOCK 8 REVISION



Show all working clearly. You may use a calculator.

1) Change the following to hours and minutes

- a) 2.5hours b) 1.75hours c) 3.4hours

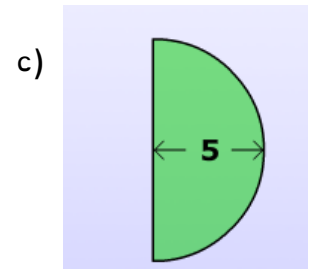
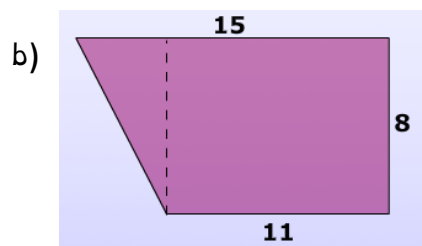
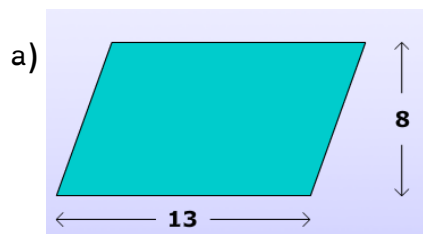
Change the following to decimal hours

- d) 66minutes e) 75minutes f) 320minutes

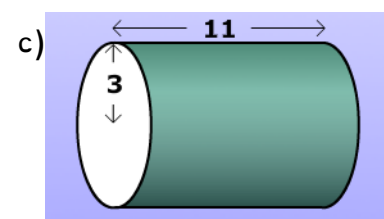
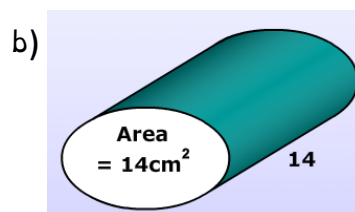
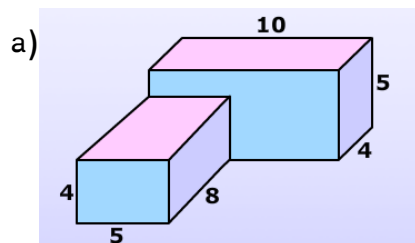
2) Simplify the following ratios

- a) 25:15 b) 12:40 c) 360:120 d) 18:24:3

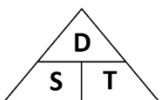
3) Calculate the area of: (all lengths are given in cm)



4) Calculate volume of: (all lengths are given in cm)



5) a) A car travels 105 miles in 3 hours. Calculate the average speed for the journey.



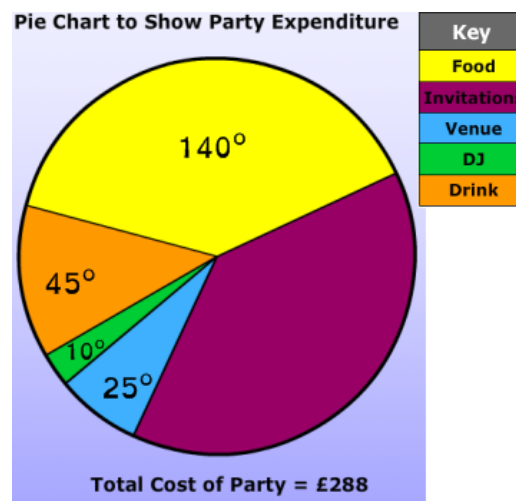
b) A car travels 60mph for 2 hours 15 minutes. How far did it travel?[Change the time to a decimal]



c) A car travels 130 miles at 50mph. Calculate the time take in hours and minutes.



- 6 a) Bob and Sally share chocolates in the ratio 4:3. If Sally gets 30 how many chocolates does Bob get?
 b) Amy and Andy share 44 oranges in the ratio 6:5. How many oranges does Andy get?
- 7) a) Write down the number of degrees for the Invitation section.



- b) How much was spent on the Venue?
 c) How much was spent on food?

- 8) (a) The Eurostar train leaves Paris, France at 1127 local time and arrives in London, Great Britain at 1308 local time. The time in Britain is one hour behind the time in France. How long did the train journey take?
 (b) There are three types of seats available on the Eurostar train: Standard, Standard Premier and Business Premier. Fares (in euros) for 1 adult are shown in the table.

Standard		Standard Premier		Business Premier
Non-flexible	Semi-flexible	Non-flexible	Semi-flexible	Fully flexible
€207.50	€220	€240.50	€262	€329

Children up to age 12 pay 70% of the adult fare.
 Travel insurance is also available as shown in the table below.

Travel insurance	€40 per person
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Children up to age 12 pay 50% of the insurance premiums.
 A 6 euro fee will be added to all credit card transactions.
 Mr and Mrs Dubois and their two children aged 6 and 11 want to travel from Paris to London on the Eurostar train.

- They decide to buy Standard, semi-flexible tickets.
- They also buy travel insurance for all four people in their party.
- They pay by credit card.
- They have budgeted 800 euros for travel costs.

Have they budgeted enough for travel costs?

9)

There are 2 yellow, 3 red, 1 blue and 4 orange cubes in a bag.

(a) Jason takes a cube from the bag. What is the probability that it is orange?

(b) The cube is replaced in the bag and 3 white cubes are added to the bag.

What is the probability that the next cube taken from the bag is not red? 23. There are 4 girls and 14 boys in a class.

A child is chosen at random and is asked to roll a die, numbered 1 to 6.

Which of these is more likely?

A: the child is female.

OR

B: the child rolls a 4.

Justify your answer.

10)

Fifty people took part in a Health Promotion Campaign. They were asked whether or not they smoked cigarettes. The following table summarises the responses.

	Smoker	Non Smoker
Male	3	21
Female	8	18

What is the probability that a person chosen at random from this group is

(a) male (b) a smoker (c) a female who smokes?

11)

The stem and leaf diagram below shows the heights of both the boys and the girls in a class.

HEIGHTS

Boys

Girls

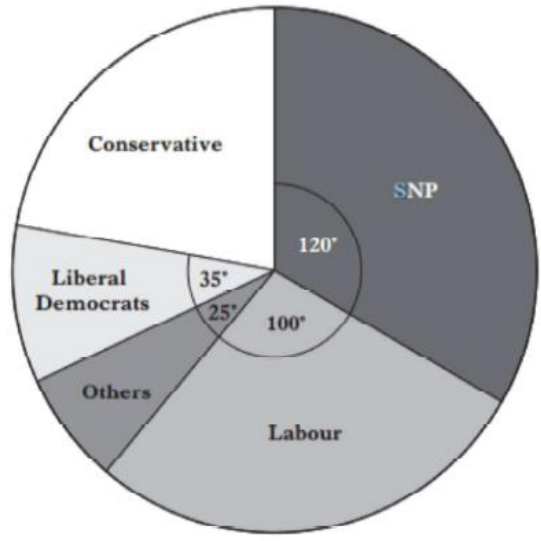
9	8	5	1	11	1	6			
8	7	4	3	12	2	5	9		
	6	2	1	13	0	1	6	8	8
			7	14	3	4	7		

12 | 5 represents 125 centimetres

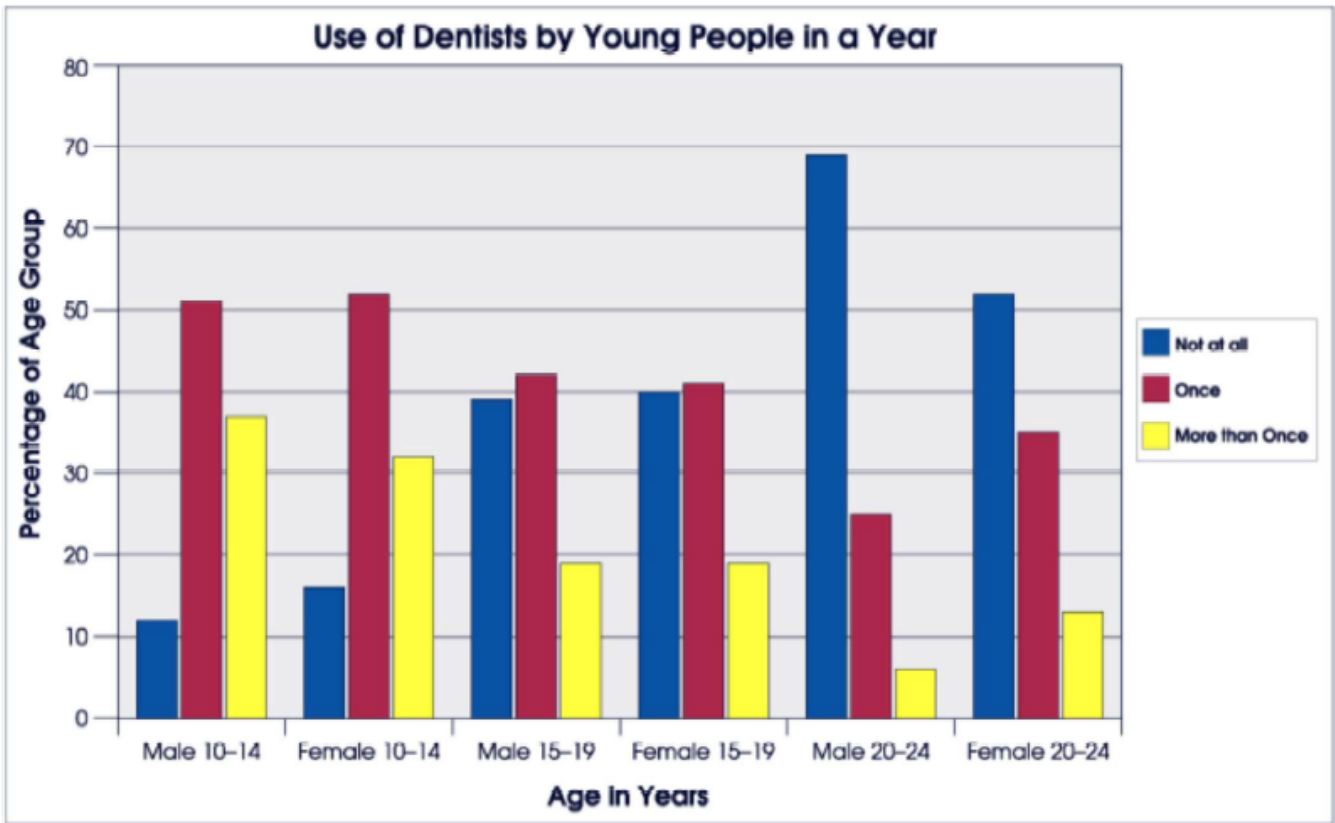
a) What is the height of the shortest person?

b) By working out the mean, compare the heights of the boys with the girls in this class.

12) A survey of 2880 first time voters was carried out.
 The pie chart below shows how they would vote at the next election.
 How many of the 2880 first time voters would vote Conservative?

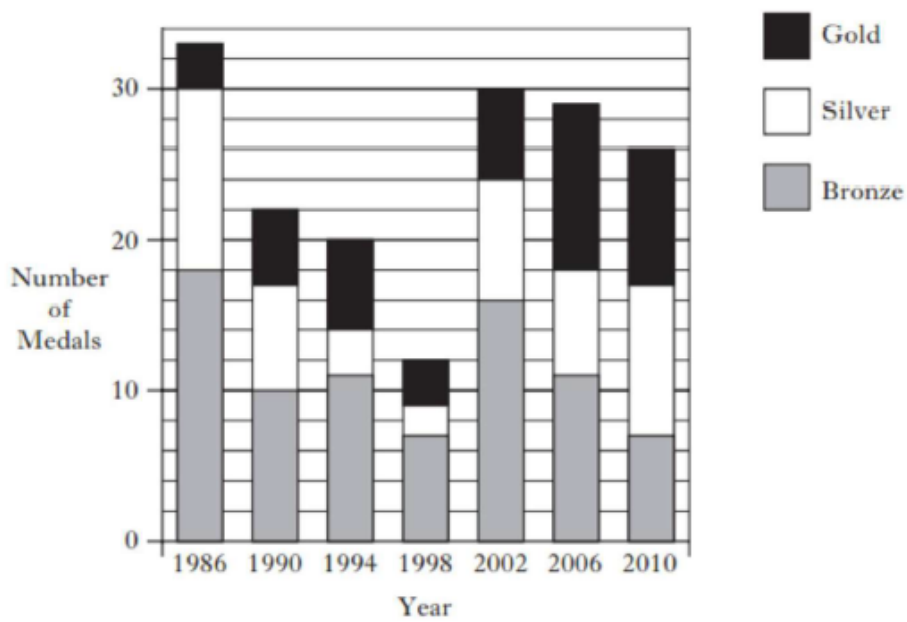


13) The bar graph shows the percentage of age groups of young people who attended the dentist.



- a) What percentage of female in the 15-19 age range did not go to the dentist at all?
- b) In which age range had the highest attendance at the dentist?
 Use the graph to justify your answer.

- 14) The bar graph shows the number of medals won by Scotland at the Commonwealth Games since 1986.



- (a) In which year were most gold medals won by Scotland?
(b) How many silver medals did Scotland win in 1990?