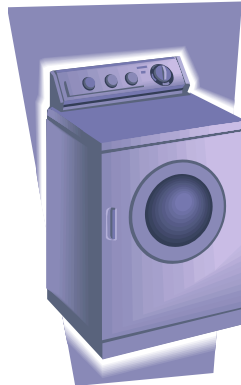## Numeracy Revision

1. I have just bought a new washing machine. The price was £450 + VAT.

VAT is charged at 20%.

What was the total price of the washing machine? **(2)**

2. My account for heating fuel amounted to £360 plus VAT.

VAT is charged at 8%.

How much did I pay altogether to the fuel company? **(2)**

3. At the moment Jay pays £32 per month for his mobile phone.

The phone company has informed him that there will be an increase of 15%.

Calculate the new cost per month. **(2)**

4. An empty container weighs 150g. When 40 lollipops were put in it the weight was 990g.

What is the weight of one lollipop? **(2)**

5. A cardboard box weighs 300g. When 12 tins of beans are added, the total weight of the box and the tins is 5·1kg.

What is the weight of one tin of beans? **(2)**

6. The total weight of a box of 60 chocolate biscuits is 1350 grams. The empty box weighs 150g.

What is the weight of one chocolate biscuit? **(2)**

7. Anne is going to Malta. How many euros will she get for £250 when the exchange rate is 1·23 euros to a pound? **(1)**

8. Irene is going to Australia on holiday. How many Australian dollars will she get for £620 when the exchange rate is 1·54 Australian dollars to a pound? **(1)**

9. Jackie is going to the USA on holiday. How many dollars will she get for £550 when the exchange rate is 1·52 dollars to a pound? **(1)**

10. Complete the following table which shows departure and arrival times for different bus journeys.

(2)

| Depart	Arrive	Time taken
1005		5h 15 min
	2100	3h 35 min

11. Complete the following table which shows start and end times for three TV programmes.

(2)

Start	End	Length
1255		2h 35 min
	2120	1h 55 min

12. Complete the following table which shows departure and arrival times for different train journeys.

(2)

Depart	Arrive	Time taken
1425		4h 40 min
	1910	2h 20 min

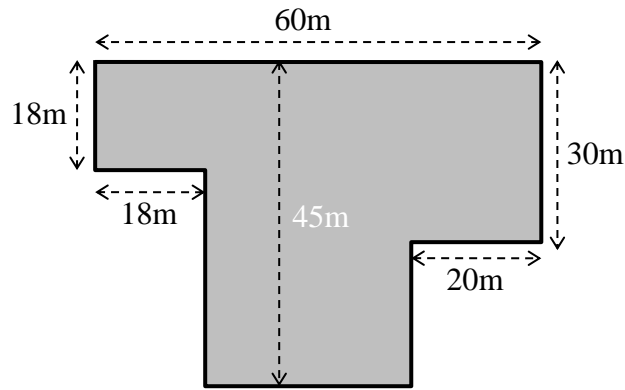**12.** The diagram shows an L – shaped room which is made up from two rectangles.
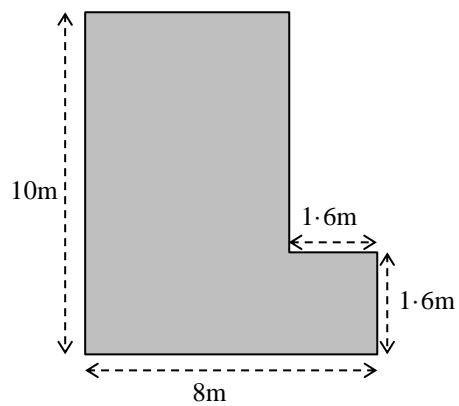
A decorative border has to be put round the room. There is 28 metres on the roll.

Is the roll long enough for the room?

Justify your answer. **(2)**

13. The diagram shows the plan for the playing fields at a sports centre.

60m

18m

18m

45m

30m

20m

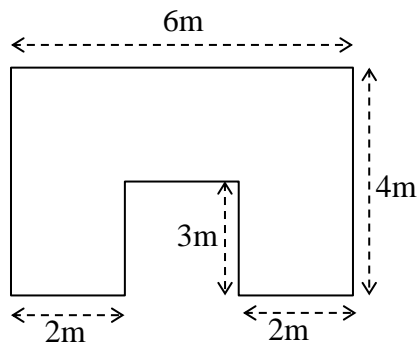A fence has to be constructed round the perimeter of the playing fields.

The manager has ordered 200 metres of fencing.

Has the manager ordered enough fencing?

Justify your answer.

(2)

14. The diagram shows the ground plan of a flat. It is made up from 3 rectangles. The dimensions are shown in the diagram

6m

3m

4m

2m

2m

A decorative rail has to be put round the whole outline. James has 28 metres of rail.

Is the roll long enough for the outline?
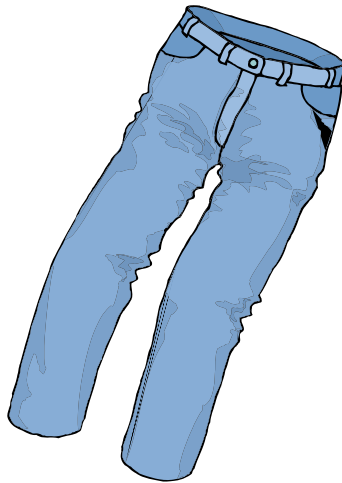
Justify your answer.

(2)

15. A car travels at a constant speed of 64 mph for 15 minutes.

How far does the car travel in this time? **(2)**

16. In a factory a woman can attached labels to a pair of jeans at a rate of 42 pairs per hour.

How many pair of jeans can she attached labels to in 10 minutes? **(2)**

17. A train travels at a constant speed of 105 km/h for 12 minutes.

How far does the train travel in this time? **(2)**

18. After a lottery win of £35 000, the money was divided between the two winners, James and Tom, in the ratio 2 : 5.

Tom received £25 000.

Is this the correct amount?

Justify your answer. **(3)**

19. To make a fruit punch orange juice and apple juice are mixed together in the ratio 3 : 1.

Beth wanted to make 16 litres of punch and calculates that she would need 12 litres of orange juice.

Is this correct?

Justify your answer. **(3)**

20. At the cinema, the ratio of adults to children was 2 : 3. There were 250 people in the cinema. The manager calculated that there were 150 adults.

Is this correct?

Justify your answer. **(3)**

21 The temperature of the freezer was -8°C. Due to an electrical fault the temperature rose by 11°C. What was the temperature then?

(1)

22 A liquid is warmed from -11°C to 5°C.

By how many degrees has its temperature risen? **(1)**

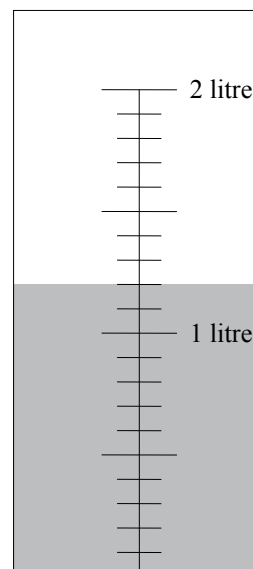**23.** The temperature in Glasgow at 8.00 am was -2°C. By noon it was 3°C .

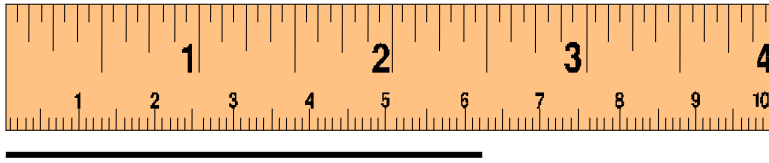By how many degrees had the temperature risen? **(1)**

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

How much more water is needed to fill the jar to 2 litres? **(1)**

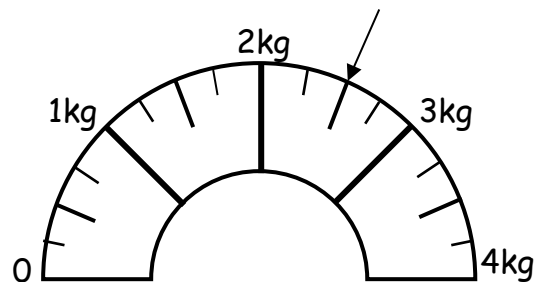**25.** The line in the diagram has to be extended to be 9·5cm.

By what length must the line be extended? **(1)**

26. The scale shows the weight of some apples. What weight of apples has to be added to make the total 4kg? **(1)**

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

Sunday Holidays	Holiday Sundays
Deposit £120	Deposit £170
Ten payments of £64·50	Ten payments of £64·30

Which shop has the cheaper deal?

Justify your answer by calculation. **(3)**

28. Two stores are offering deals on the same washing machine.

The details of the deals are shown here.

Shop A	**Shop B**
Deposit: £100	Deposit: Nil
24 payments of £12	30 payments of £13

Which company is giving the best deal?

Justify your answer by calculation. **(3)**

29. Two shops are offering a deal on the same mobile phone.

The details of the deals are shown here.

Shop A	**Shop B**
Monthly charge: £21	Monthly charge: £25
Cost per text: 12p	Cost per text: 10p

Vanessa sends 100 texts each month. Which company should she use?
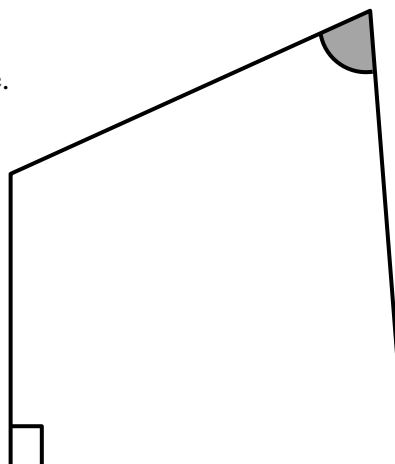
Justify your answer by calculation. **(3)**

30. This diagram shows a quadrilateral with a right - angle.

    (a) Measure the length of the longest side. **(1)**

    (b) Measure the size of the shaded angle. **(1)**

31. This diagram shows a square and a triangle.

   (a) Measure the length of the diagonal of the square. **(1)**
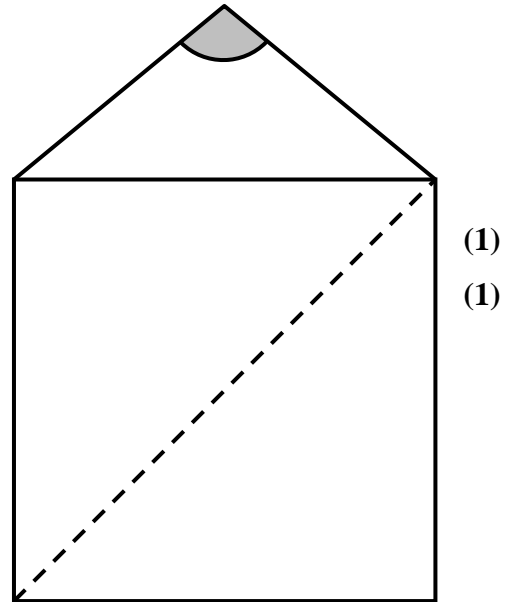
   (b) Measure the size of the shaded angle. **(1)**

32. This triangle is right-angled.

   (a) Measure the length of the longest side. **(1)**
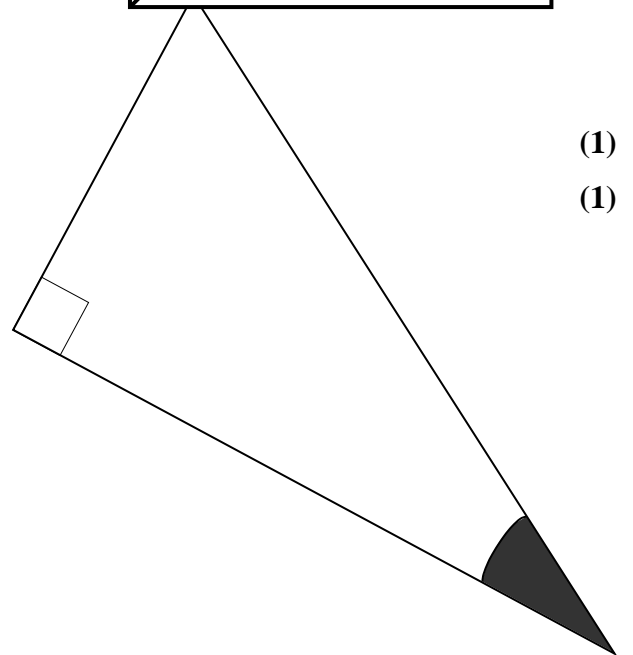
   (b) Measure the size of the shaded angle. **(1)**

33. The number of pupils in each year group in a secondary school was recorded and this pie chart drawn.
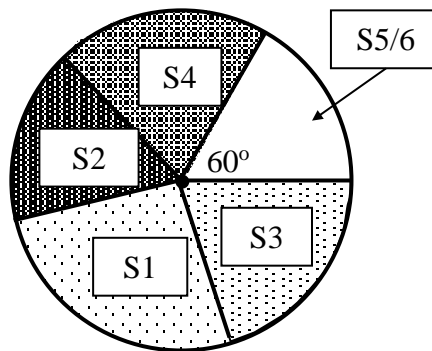
There are 1800 pupils in the school.

How many pupils were there in S5/6? **(#2.1 and 1)**

34. The pie chart shows the approximate share of the market held by several leading supermarkets.
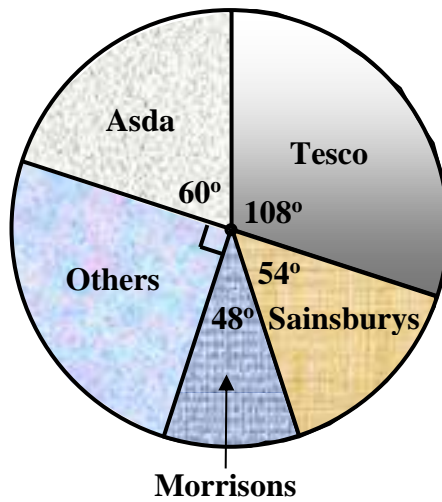
If £9 000 000 000 was spent in Britain's supermarkets last year, calculate how much
was spent in Morrisons. **(#2.1 and 1)**

35. A well known supermarket produced this pie chart to show how they supported
projects in their local community last year.
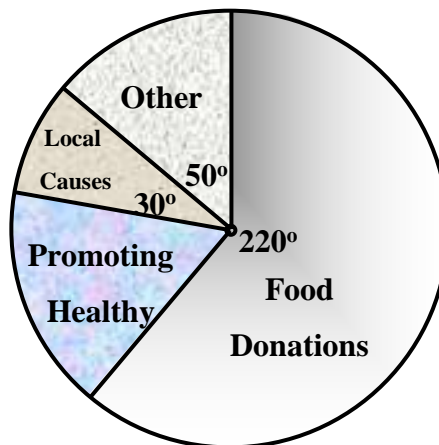
The total donated to these causes amounted to £63 420.

Calculate how much was donated to 'Promoting Healthy Eating'. **(2.1 and 1)**

36. 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 £6000 (inc)	Between £6000 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?   **(#2.1)**

37. This table shows the number of rolls of wallpaper required for different sizes of rooms:

Height from ceiling to floor	Width round room							
	9m	10m	12m	13m	14m	15m	17m	18m
0·75 – 1·00m	2	3	3	3	3	4	4	4
1·00 – 1·25m	3	3	4	4	4	5	5	5
1·25 – 1·50m	3	4	4	5	5	5	6	6
1·50 – 1·75m	4	4	5	5	6	6	6	7
1·75 – 2·00m	4	5	5	6	6	7	7	8
2·00 – 2·15m	4	5	5	6	6	7	7	8
2·15 – 2·38m	4	5	5	6	6	7	7	8

Use the table to decide how many rolls of wallpaper would be needed for a room of height 2·1 metres and width round room of 13 metres.   **(#2.1)**

38. The local stationers make photocopies. The table shows the charges they make for doing this:

NO OF COPIES	BLACK & WHITE	COLOUR
UP TO 10	10p each	20p each
11-50	9p each	18p each
51-100	8p each	16p each
101-150	7p each	14p each
151-200	6p each	12p each
201-250	5p each	10p each

How much would it cost for 120 copies in colour?   **(#2.1)**

39. The number of people using a gym each day was recorded for a week and this compound bar chart was drawn.
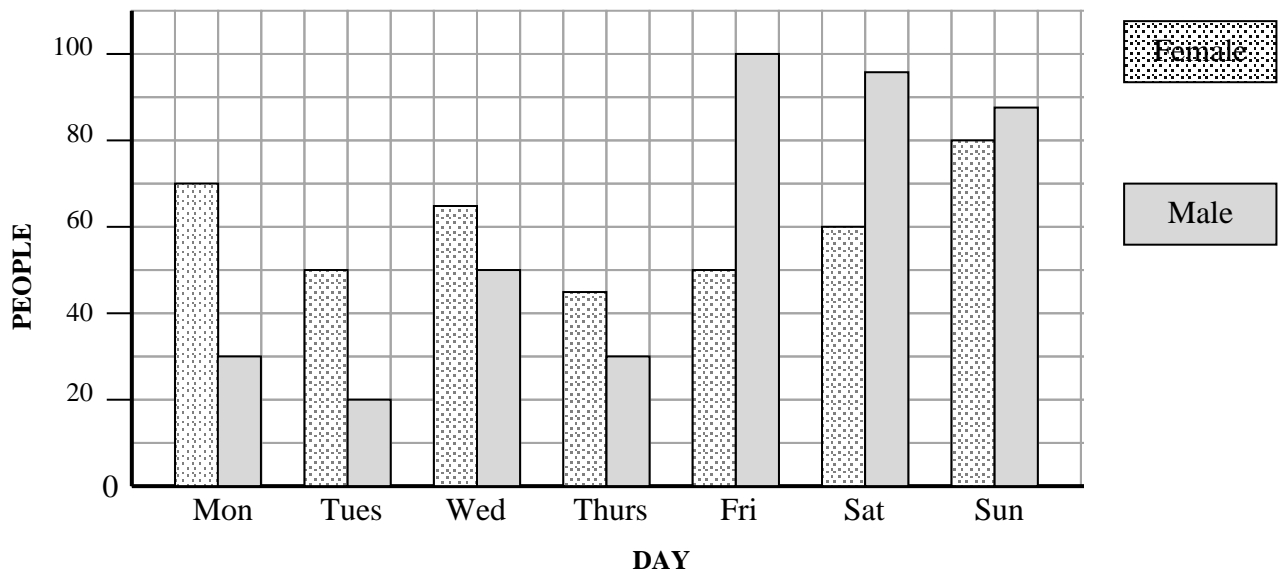
(a) How many males used the gym on Friday?   **(#2.1)**

(b) Compare the use of the gym by both males and females across the week.   **(#2.2)**

40. The compound bar graph shows how blood pressure varies with age in males and females.

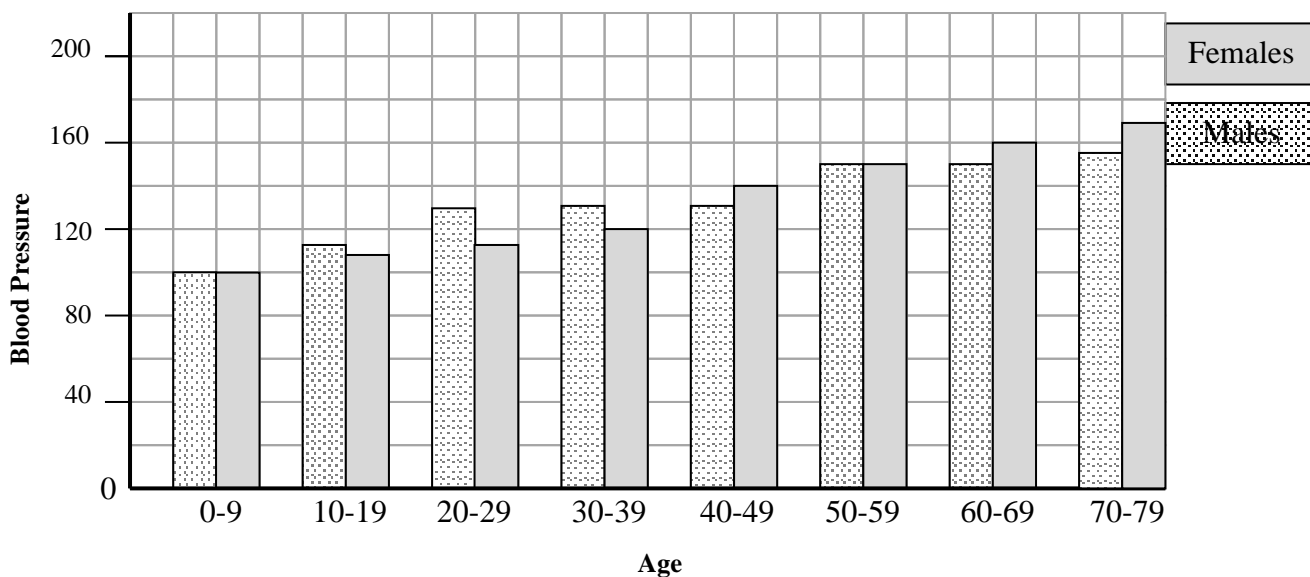**(a)** In which age range is the difference between males and females the greatest? **(#2.1)**

(b) Describe the relationship between age and blood pressure. **(#2.2)**

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

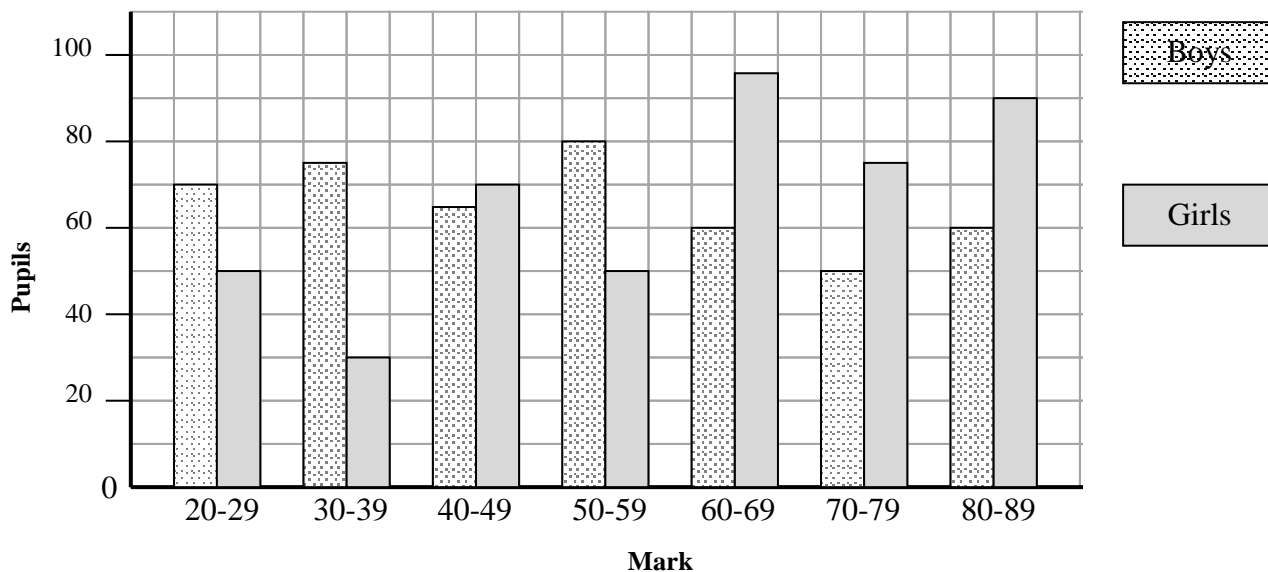|	**Company A**	**Company B**	**Company C**
Calls (minutes)	100	120	130
Texts	1000	750	800
Internet (Mb)	150	160	140

Amy is looking for a mobile phone contract which will give her 90 minutes of calls, 800 texts, and 140Mb of internet use.

Which company's plan would be best for her?

Give a reason for your answer. **(#2.2)**

42. The test marks for a year group were recorded in this compound bar graph.

(a) How many girls scored a mark between 70 – 79?   **(#2.1)**

(b) Compare the marks of the boys and girls in this test.   **(#2.2)**

43. Seven pupils in a class had their heights and weights measured. The results are shown in the table.

Name	Height (cm)	Weight (kg)
Liam	168	64
Steven	180	79
Gemma	174	66
Susan	181	75
David	159	78
Ryan	163	69
Emma	145	67

Who weighs more than 70 kg and is less than 180 cm tall?

Explain how you made this decision.   **(#2.2)**

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

	Company A	**Company B**	**Company C**
Calls (minutes)	100	120	130
Texts	1000	750	800
Internet (Mb)	150	130	140

Laura is looking for a mobile phone contract which will give her 110 minutes of calls, 700 texts, and 140Mb of internet use.

Which company's plan would be best for her?

Give a reason for your answer.   **(#2.2)**

45. Tickets are being sold for two different prizes at a fayre.
Corinne has tickets for both.

90 tickets have been sold for prize A and 120 tickets have been sold for prize B.
Joanne has 15 tickets for prize A and 12 tickets for prize B.

Which prize has Joanne the better chance of winning?
Justify your answer by calculation.   **(1 and #2.3)**

46. David scored the following marks in three of her tests.

Maths: 28 out of 40
English: 35 out of 50
Science: 42 out of 60

In which subject did she do best in?
Justify your answer by calculation.   **(1 and #2.3)**

47. Which of the following is the more likely to occur?
Choosing a club from a pack of cards OR throwing a number less than 3 on an ordinary die.
Justify your answer by calculation.   **(1 and #2.3)**

48.   Three classes in a school were given the same test. The pass rate for each class is given here.

   Class A: 26 out of 30 pupils passed

   Class B: 21 out of 25 pupils passed

   Class C: 19 out of 22 pupils passed

   Which class had the best pass rate?

   Justify your answer by calculation.   **(1 and #2.3)**

49.   A representative for the school Government has to be chosen from Class A or Class B.

   The pupil will be picked at random.

   There are 30 pupils in class A and 24 in class B.

   8 people in Class A want to be the rep and 6 people in Class B want to be the rep.

   Which class is the representative more likely to come from?

   Justify your answer by calculation.   **(1 and #2.3)**

50.   In a Maths competition a team gained the following marks in each of three rounds.

   Team: 14 out of 25

   Speed: 22 out of 40

   Relay: 42 out of 70

   In which round did the team do best?

   Justify your answer by calculation.   **(1 and #2.3)**