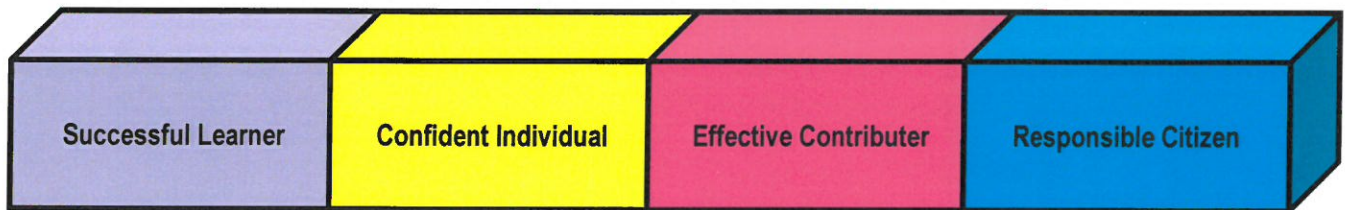


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Non Calculator





Page 01 Percentages

Page 02 Enlargement

Page 03 Fractions

Page 04 Decimals

Page 05 Pie Charts



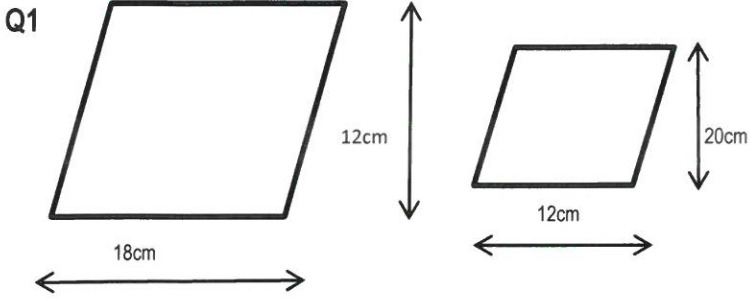
Topic: Percentages

- Q1** To buy a House 20% of the total cost must be paid as a deposit. How much be paid if the cost is £320000
- Q2** To buy a Car 30% of the total cost must be paid as a deposit. How much be paid if the cost is £7500
- Q3** To buy a Fridge 40% of the total cost must be paid as a deposit. How much be paid if the cost is £510
- Q4** To buy a TV 50% of the total cost must be paid as a deposit. How much be paid if the cost is £1300
- Q5** To buy a Holiday 60% of the total cost must be paid as a deposit. How much be paid if the cost is £860
- Q6** To buy a Motorbike 70% of the total cost must be paid as a deposit. How much be paid if the cost is £5200
- Q7** To buy a Dishwasher 80% of the total cost must be paid as a deposit. How much be paid if the cost is £580
- Q8** To buy a Holiday 90% of the total cost must be paid as a deposit. How much be paid if the cost is £2500
- Q9** To buy a Flat 20% of the total cost must be paid as a deposit. How much be paid if the cost is £80000
- Q10** To buy a Laptop 30% of the total cost must be paid as a deposit. How much be paid if the cost is £660
- Q11** To buy a Van 40% of the total cost must be paid as a deposit. How much be paid if the cost is £12000
- Q12** To buy a Bed 50% of the total cost must be paid as a deposit. How much be paid if the cost is £600
- Q13** To buy a Pool Table 60% of the total cost must be paid as a deposit. How much be paid if the cost is £420
- Q14** To buy a Bike 70% of the total cost must be paid as a deposit. How much be paid if the cost is £240
- Q15** To buy a Couch 80% of the total cost must be paid as a deposit. How much be paid if the cost is £3000
- Q16** To buy a House 90% of the total cost must be paid as a deposit. How much be paid if the cost is £60000

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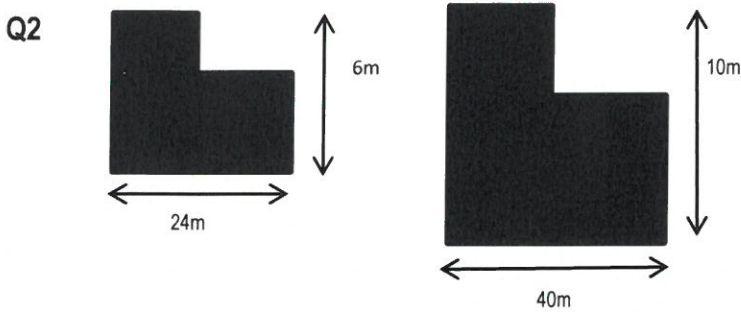
Topic: Enlargement

Non Calculator



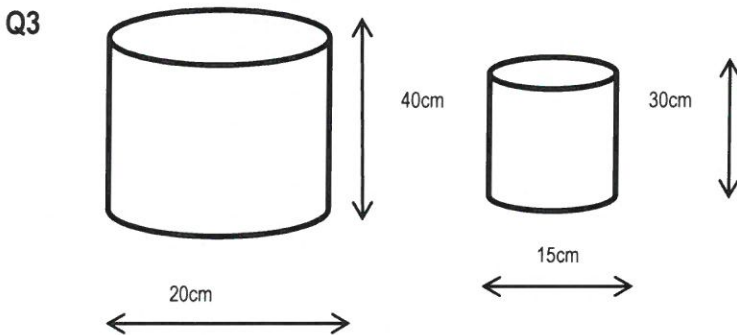
Using a scale factor of $\frac{2}{3}$
shape A was enlarged to shape B.

Is this correct? Explain your answer.



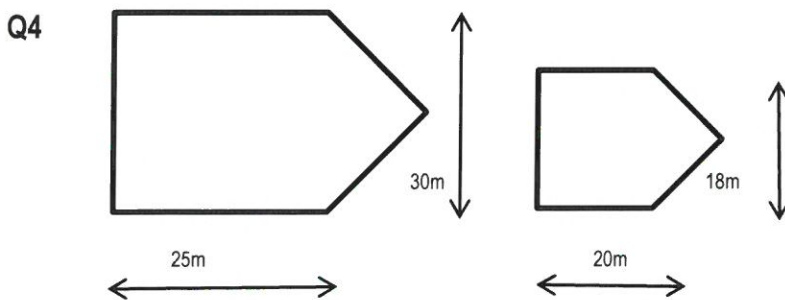
Using a scale factor of $\frac{5}{3}$
shape A was enlarged to shape B.

Is this correct? Explain your answer.



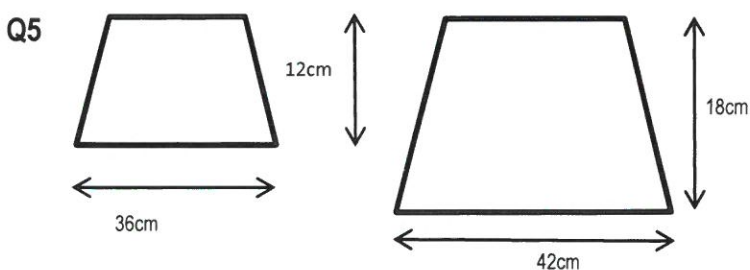
Using a scale factor of $\frac{3}{4}$
shape A was enlarged to shape B.

Is this correct? Explain your answer.



Using a scale factor of $\frac{4}{5}$
shape A was enlarged to shape B.

Is this correct? Explain your answer.



Using a scale factor of $\frac{7}{6}$
shape A was enlarged to shape B.

Is this correct? Explain your answer.



Topic: Fractions

Q1 A Stadium holds 20781 football fans. One day it was

$\frac{4}{9}$ full. How many people were there?

Q2 A Factory holds 561 workers. One day it was

$\frac{2}{3}$ full. How many staff were there?

Q3 A museum holds 840 people. One day it was

$\frac{5}{6}$ full. How many people were there?

Q4 A School holds 750 pupils. One day it was

$\frac{3}{5}$ full. How many pupils were there?

Q5 A park holds 3500 tourists. One day it was

$\frac{2}{7}$ full. How many tourists were there?

Q6 An aircraft holds 1640 people. One day it was

$\frac{3}{4}$ full. How many travellers were there?

Q7 A Theatre holds 3208 people. One day it was

$\frac{5}{8}$ full. How many people were there?

Q8 A nightclub holds 840 people. One day it was

$\frac{1}{3}$ full. How many clubbers were there?

Q9 A Train holds 325 people. One day it was

$\frac{2}{5}$ full. How many people were there?

Q10 An art gallery holds 1015 people. One day it was

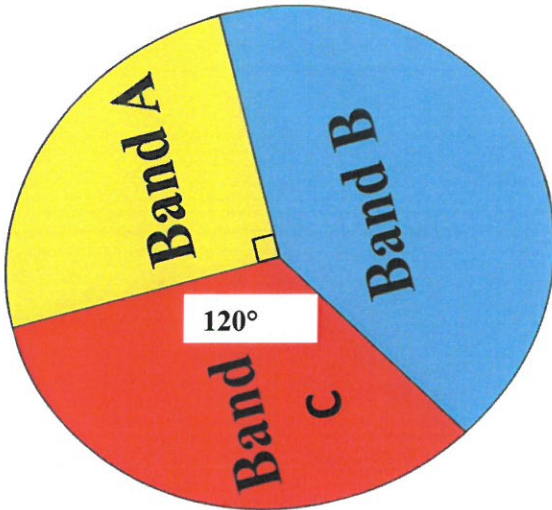
$\frac{3}{7}$ full. How many visitors were there?



Topic: Decimals

- Q1** To make a cake, a baker uses 17.31kg of flour with
4.8kg of sugar
- The baker uses 10.5kg of the cake at a wedding.
How much of the cake is not used?
- Q2** To make a cake, a baker uses 2.76kg of flour with
3.4kg of sugar
- The baker uses 2.8kg of the cake at a 30th party.
How much of the cake is not used?
- Q3** To make a cake, a baker uses 6.23kg of flour with
2.5kg of sugar
- The baker uses 4.9kg of the cake at a Christening.
How much of the cake is not used?
- Q4** To make a cake, a baker uses 23.46kg of flour with
8.2kg of sugar
- The baker uses 21.7kg of the cake at a wedding.
How much of the cake is not used?
- Q5** To make a cake, a baker uses 1.28kg of flour with
0.7kg of sugar
- The baker uses 0.4kg of the cake at a 40th party.
How much of the cake is not used?
- Q6** To make a cake, a baker uses 5.73kg of flour with
2.9kg of sugar
- The baker uses 3.9kg of the cake at an engagement party.
How much of the cake is not used?
- Q7** To make a cake, a baker uses 14.82kg of flour with
5.4kg of sugar
- The baker uses 7.8kg of the cake at a leaving party.
How much of the cake is not used?

Non Calculator

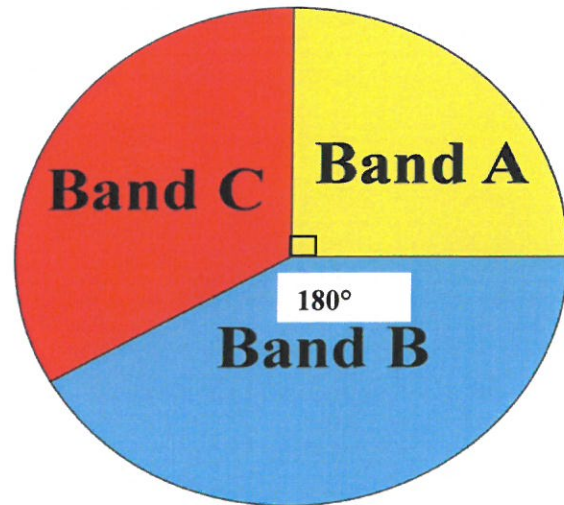


The results of the 48 votes are shown below in the pie chart.

How many pupils voted for Band C?

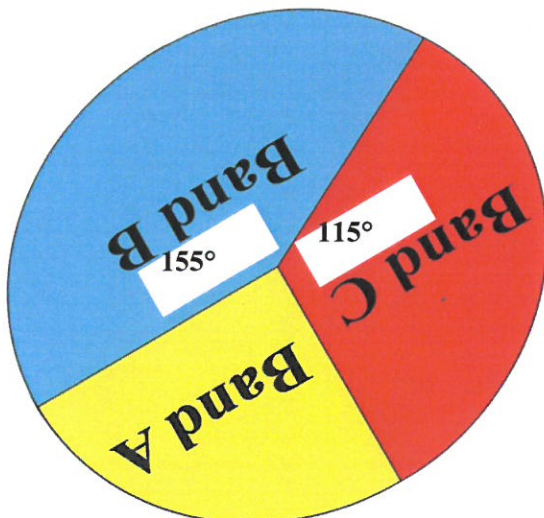
The results of the 120 votes are shown below in the pie chart.

How many pupils voted for Band B?



The results of the 300 votes are shown below in the pie chart.

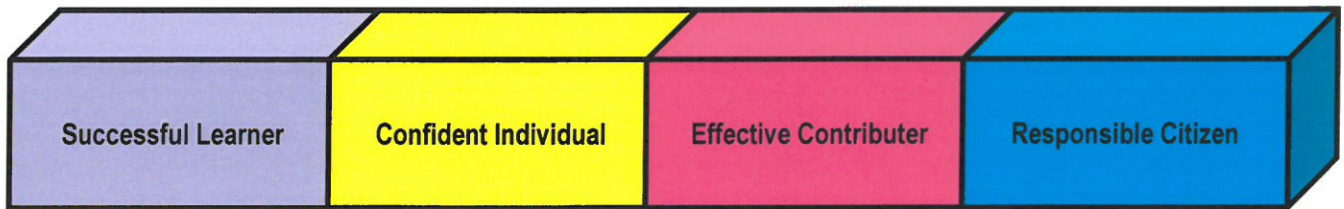
How many pupils voted for Band A?



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Calculator





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Page 03 Patterns

Page 04 Distance Time & Speed

Page 05 Pythagoras

Page 06 Perimeter

Page 07 SOH CAH TOA

Page 08 Scattergraphs

Page 09 Probability

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Topic: Equations

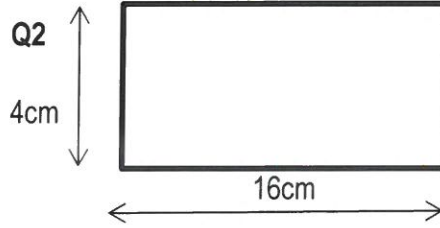
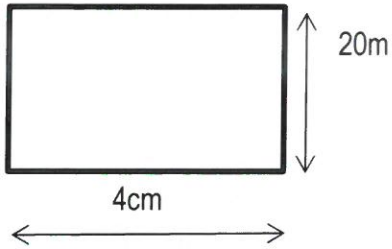
- | | | | |
|------------|-----------------|------------|---------------------|
| Q1 | $2x + 2 = 8$ | Q21 | $2x + 2 = x + 7$ |
| Q2 | $3x + 4 = 10$ | Q22 | $5x + 7 = 4x + 12$ |
| Q3 | $2x - 1 = 9$ | Q23 | $2x - 2 = x + 8$ |
| Q4 | $4x - 3 = 25$ | Q24 | $4x - 4 = 3x + 20$ |
| Q5 | $6x - 3 = 45$ | Q25 | $3x + 5 = x + 13$ |
| Q6 | $8x + 7 = 31$ | Q26 | $6x - 1 = 4x + 7$ |
| Q7 | $3x - 7 = 2$ | Q27 | $8x + 3 = 5x + 12$ |
| Q8 | $5x + 40 = 40$ | Q28 | $7x - 8 = 2x + 42$ |
| Q9 | $7x - 7 = 0$ | Q29 | $4x - 9 = 2x + 4$ |
| Q10 | $6x - 2 = 13$ | Q30 | $5x - 4 = x + 10$ |
| Q11 | $4x + 11 = 15$ | Q31 | $2x + 5 = x + 8$ |
| Q12 | $3x = 2x + 1$ | Q32 | $8x + 3 = 7x + 14$ |
| Q13 | $7x = 2x + 20$ | Q33 | $2x - 5 = x + 9$ |
| Q14 | $4x = 2x + 10$ | Q34 | $8x - 1 = 7x + 17$ |
| Q15 | $21 = 8x + 1$ | Q35 | $4x + 3 = 2x + 15$ |
| Q16 | $62 = 3x - 1$ | Q36 | $3x - 9 = x + 5$ |
| Q17 | $19 = 3x - 2$ | Q37 | $5x + 1 = x + 21$ |
| Q18 | $12 = 2x - 2$ | Q38 | $10x - 7 = 4x + 53$ |
| Q19 | $2x + 3 = 13$ | Q39 | $9x + 1 = 7x + 10$ |
| Q20 | $0 = 100x - 25$ | Q40 | $12x + 3 = 2x + 28$ |

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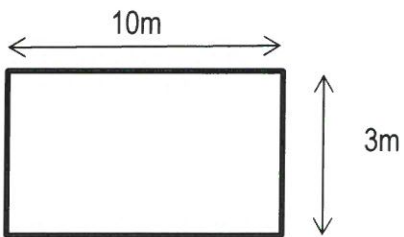
Topic: Area



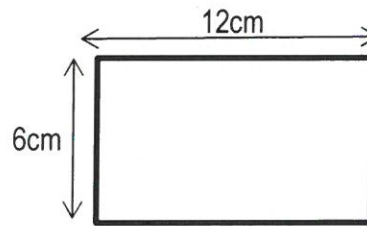
Q1



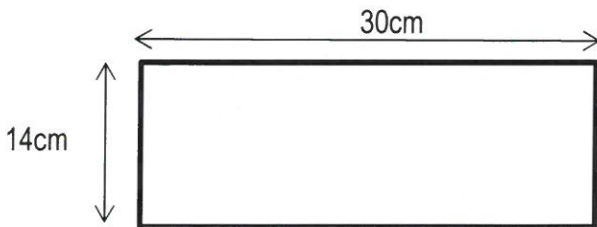
Q3



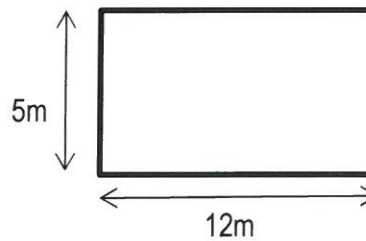
Q4



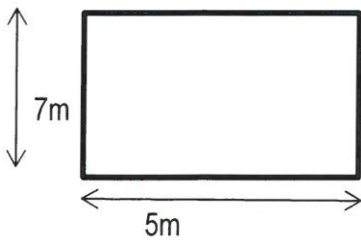
Q5



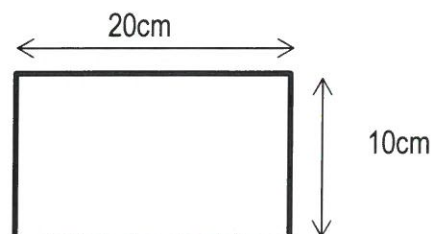
Q6



Q7



Q8



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Topic: Patterns

For each table below, create a formula to calculate the number for a when you know the number of b then answer the following questions for the four tables in each row.

Q1: Find a when b = 20

a	1	2	3	4
b	2	4	6	8

a	1	2	3	4
b	0	4	8	12

a	1	2	3	4
b	2	5	8	11

a	1	2	3	4
b	4	6	8	10

Q2: Find a when b = 37

a	1	2	3	4
b	7	9	11	13

a	1	2	3	4
b	1	4	7	10

a	1	2	3	4
b	7	12	17	22

a	1	2	3	4
b	1	3	5	7

Q3: Find a when b = 49

a	1	2	3	4
b	7	14	21	28

a	1	2	3	4
b	5	7	9	11

a	1	2	3	4
b	4	9	14	19

a	1	2	3	4
b	9	11	13	15

Q4: Find a when b = 40

a	1	2	3	4
b	8	16	24	32

a	1	2	3	4
b	10	20	30	40

a	1	2	3	4
b	5	10	15	20

a	1	2	3	4
b	4	8	12	16

Q5: Find a when b = 21

a	1	2	3	4
b	0	3	6	9

a	1	2	3	4
b	9	12	15	18

a	1	2	3	4
b	3	6	9	12

a	1	2	3	4
b	1	3	5	7

Q6: Find a when b = 36

a	1	2	3	4
b	6	11	16	21

a	1	2	3	4
b	6	12	18	24

a	1	2	3	4
b	0	4	8	12

a	1	2	3	4
b	0	2	4	6

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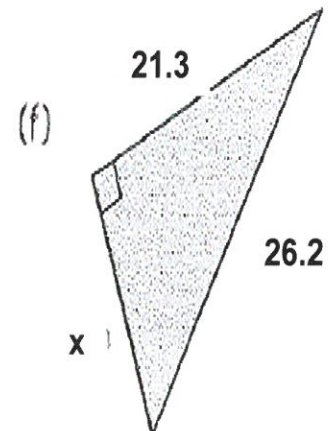
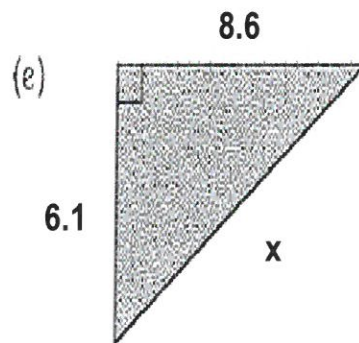
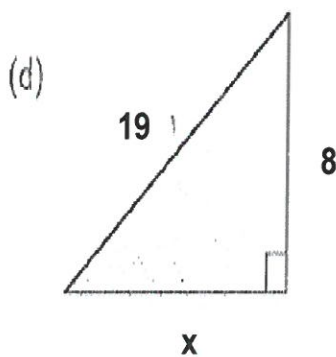
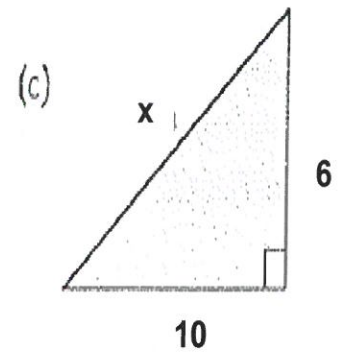
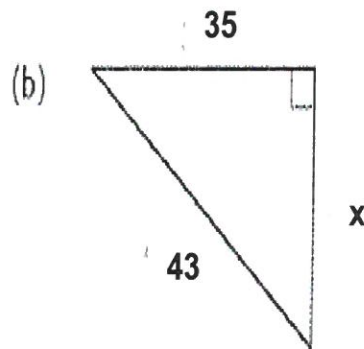
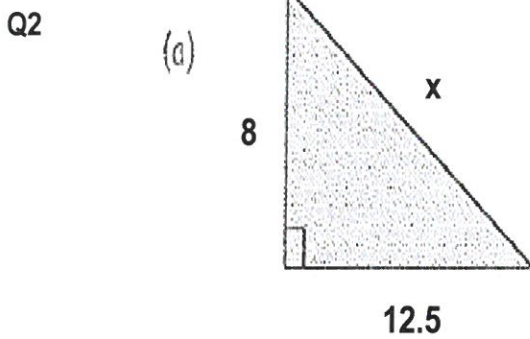
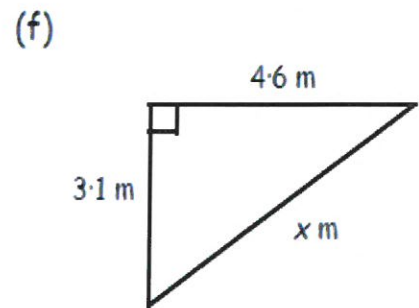
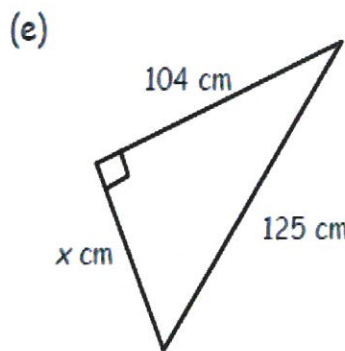
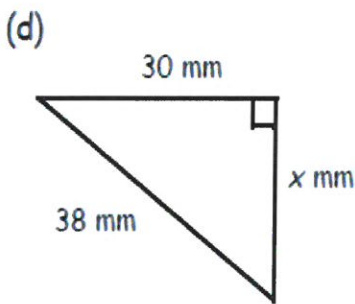
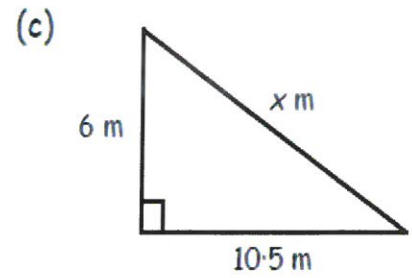
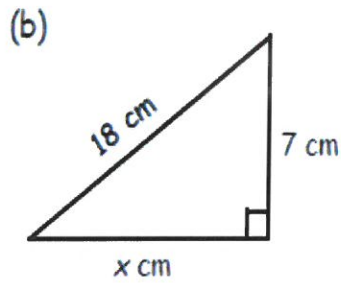
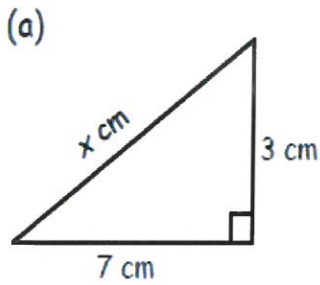


Topic: Distance, Time & Speed

- Q1** Elaine travelled by car a distance of 225 miles
The time of travel was 4 hours 30 minutes
What was the average speed of this journey?
- Q2** Thomas travelled by train a distance of 60 kilometers
The time of travel was 40 minutes
What was the average speed of this journey?
- Q3** Declan travelled by taxi a distance of 11 miles
The time of travel was 10 minutes
What was the average speed of this journey?
- Q4** Steph travelled by bus a distance of 324
The time of travel was 5 hours 25 minutes
What was the average speed of this journey?
- Q5** Paul travelled by motorbike a distance of 60 miles
The time of travel was 45 minutes
What was the average speed of this journey?
- Q6** Donna travelled by taxi a distance of 38 miles
The time of travel was 50 minutes
What was the average speed of this journey?
- Q7** Frank travelled by car a distance of 406 miles
The time of travel was 6 hours 15 minutes
What was the average speed of this journey?
- Q8** Pauline travelled by train a distance of 221 kilometers
The time of travel was 2 hours 5 minutes
What was the average speed of this journey?
- Q9** Stuart travelled by bus a distance of 29 miles
The time of travel was 35 minutes
What was the average speed of this journey?
- Q10** Rosie travelled by car a distance of 179 miles
The time of travel was 3 hours 5 minutes
What was the average speed of this journey?
- Q11** Adam travelled by bike a distance of 251 miles
The time of travel was 4 hours 20 minutes
What was the average speed of this journey?



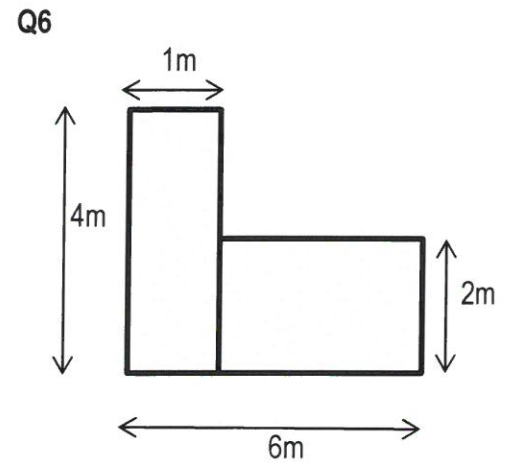
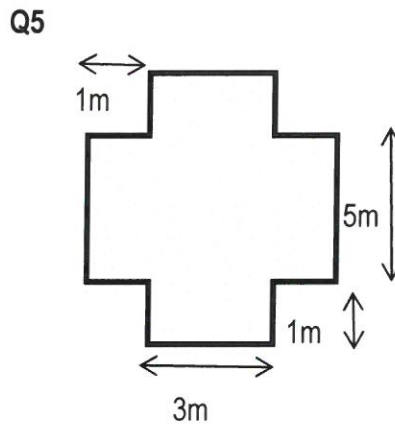
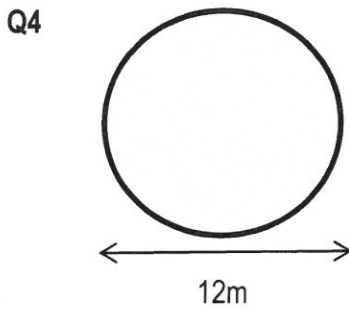
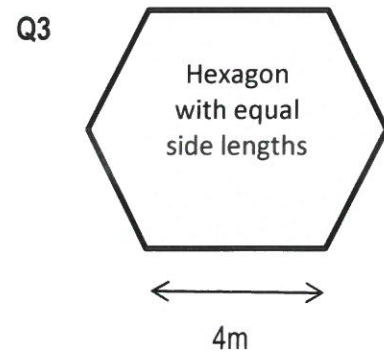
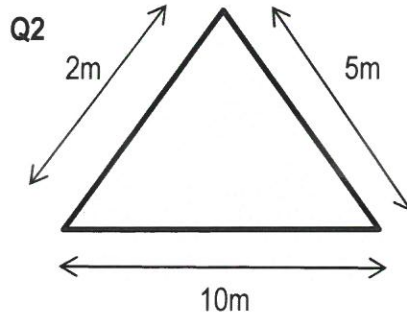
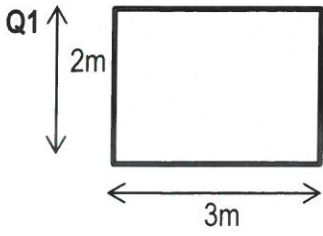
Q1 Use the appropriate formula to find the value of x each time :-



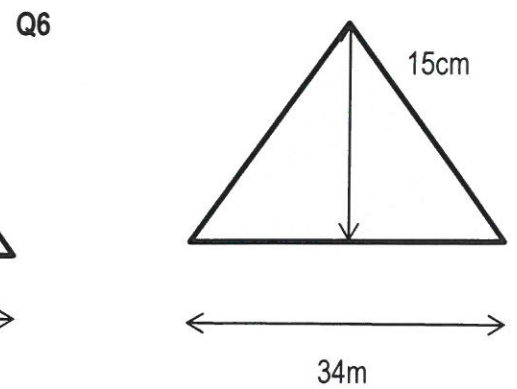
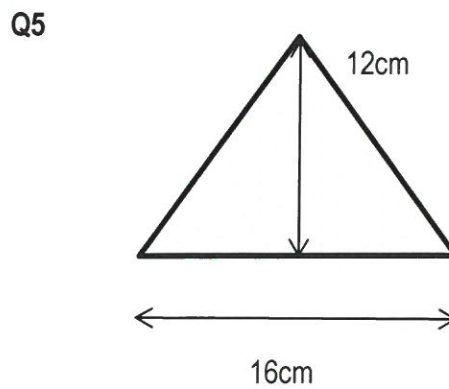
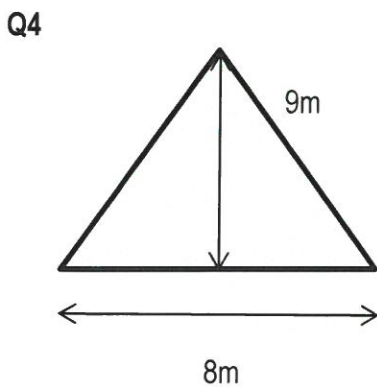
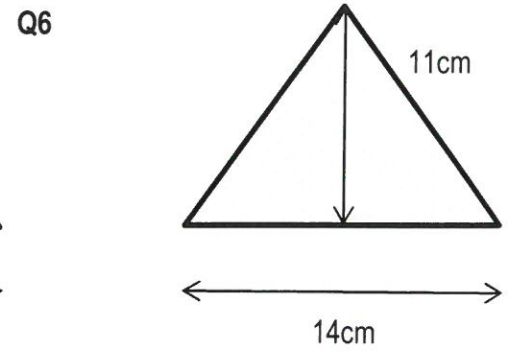
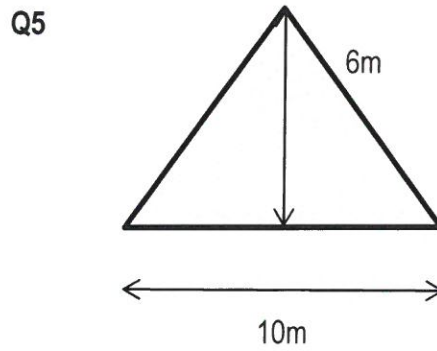
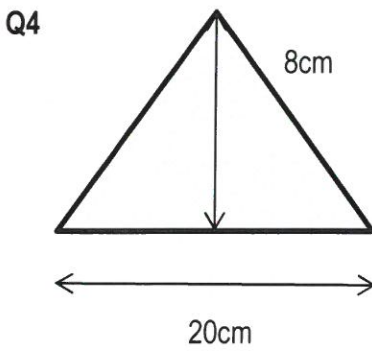
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Topic: Perimeter



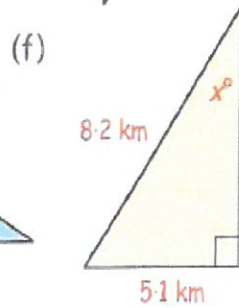
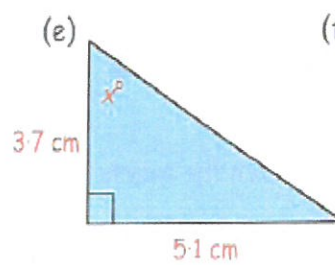
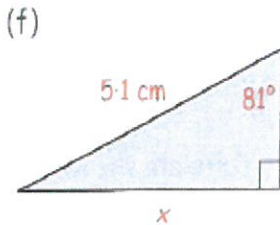
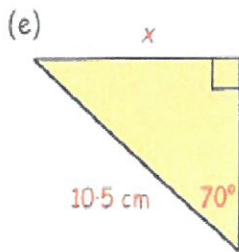
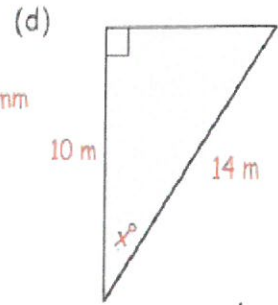
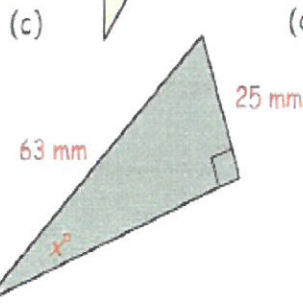
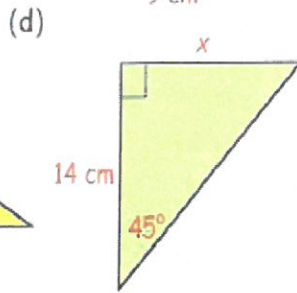
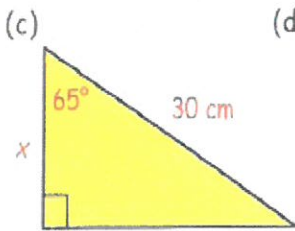
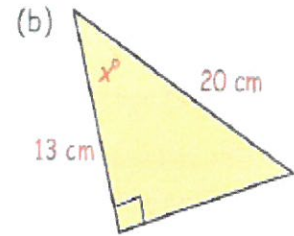
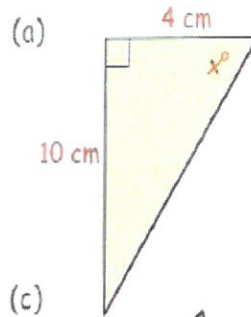
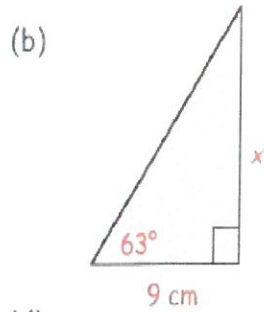
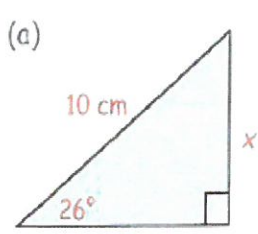
Hint: Pythagoras!



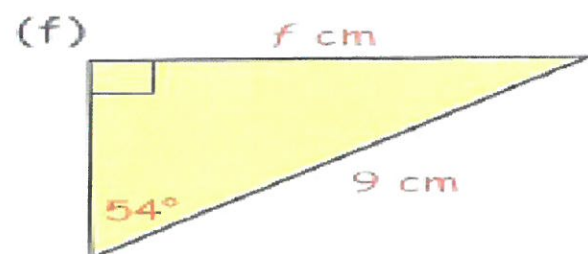
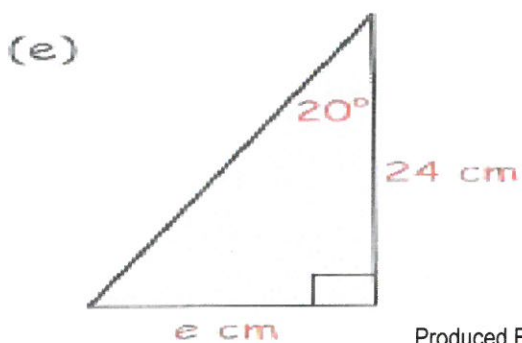
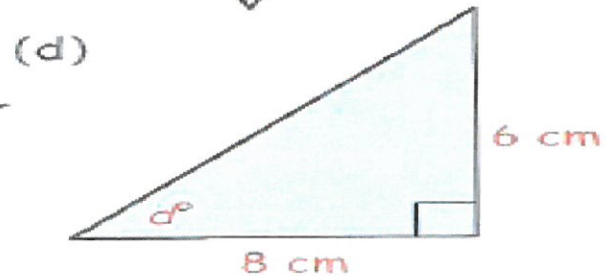
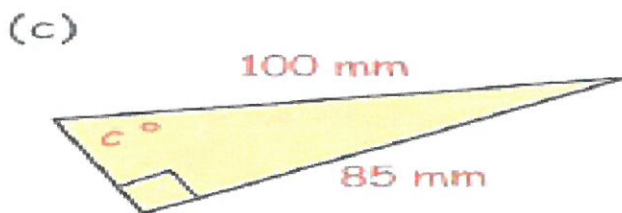
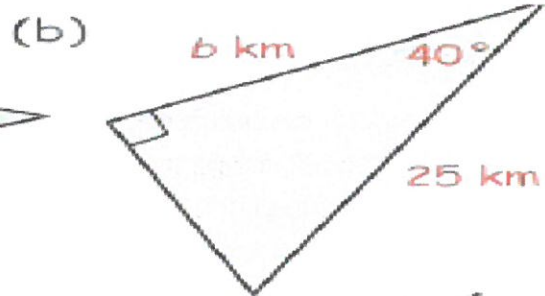
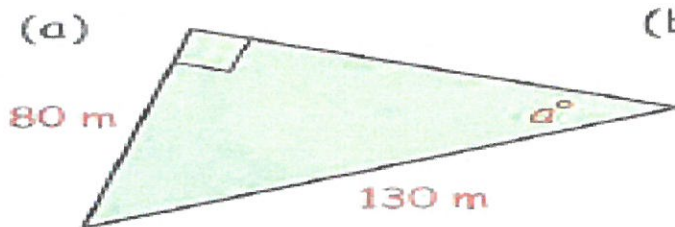


Topic: SOH CAH TOA

Q1



Q2



National 4
Course Revision



Topic: Scattergraphs

- Q1 Use the information in the table to create a scattergraph.
Draw a line of best fit.
Estimate the value for Y is when X is

X	Y
2	7
2	5
3	2
4	5
5	1
5	6
6	3
7	0

- Q2 Use the information in the table to create a scattergraph.
Draw a line of best fit.
Estimate the value for X is when Y is

X	Y
0	0
10	20
30	50
40	40
40	80
50	90
60	70
70	100

- Q3 Use the information in the table to create a scattergraph.
Draw a line of best fit.
Estimate the value for Y is when X is

X	Y
1	2
2	1
2	4
4	4
3	5
2	8
5	9
6	5

- Q4 Use the information in the table to create a scattergraph.
Draw a line of best fit.
Estimate the value for X is when Y is

X	Y
10	100
20	80
40	40
50	60
50	90
60	20
70	40
80	10

National 4
Course Revision



Topic: Probability

- Q1** Bag 1 contains 5 blue and 8 green pencils.
Bag 2 contains 12 blue and 13 green pencils.
Jennifer thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.
- Q2** Bag 1 contains 6 blue and 2 green pencils.
Bag 2 contains 7 blue and 3 green pencils.
Tracy thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.
- Q3** Bag 1 contains 20 blue and 25 green pencils.
Bag 2 contains 14 blue and 16 green pencils.
Julie thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.
- Q4** Bag 1 contains 29 blue and 30 green pencils.
Bag 2 contains 8 blue and 9 green pencils.
Elaine thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.
- Q5** Bag 1 contains 10 blue and 15 green pencils.
Bag 2 contains 22 blue and 28 green pencils.
Francis thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.
- Q6** Bag 1 contains 53 blue and 27 green pencils.
Bag 2 contains 44 blue and 28 green pencils.
Amanda thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.
- Q7** Bag 1 contains 120 blue and 100 green pencils.
Bag 2 contains 50 blue and 45 green pencils.
Debra thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.
- Q8** Bag 1 contains 80 blue and 20 green pencils.
Bag 2 contains 65 blue and 20 green pencils.
Sam thinks she has a greater probability of picking a blue pencil from Bag 1.
Is she correct? Justify your answer.