FOCUS 5 TASKS - Set 1

Each of the 36 topics is covered once within the 6 sheets

Sheet 1A

Two-way tables	Q1
Use of a calculator	Q2
Quadratic and cubic graphs	Q3
Proportion	Q4
Venn Diagrams	Q5
Compound Measures	Q6

Sheet 1B

Simultaneous equations	Q1
Trigonometry - finding an angle	Q2
Estimation	Q3
Percentages	Q4
Equivalence	Q5
Reflections	Q6

Sheet 1C

Exchange rates	Q1
Product of prime factors	Q2
Probability from a Table	Q3
Averages from Grouped Data	Q4
Translations	Q5
Scatter graphs	Q6

Sheet 1D

Indices	Q1
Trigonometry - finding sides	Q2
Volume	Q3
Standard Form	Q4
Alternate and corresponding angles	Q5
Pythagoras /Trigonometry	Q6

Sheet 1E
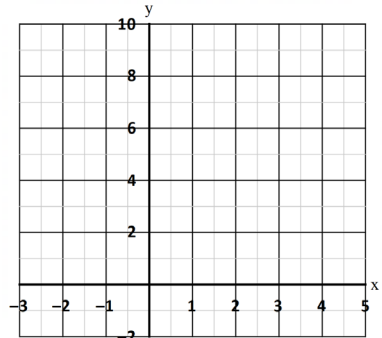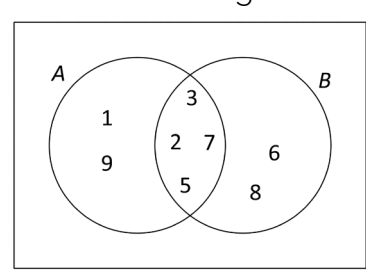
Circles	Q1
Plans and elevations	Q2
Expand and Simplify	Q3
Sequences - nth term	Q4
Pythagoras	Q5
Rotations	Q6

Sheet 1F

Averages from a Table	Q1
Vectors	Q2
Enlargements	Q3
Inequalities	Q4
Straight Line Graphs	Q5
Expanding Double Brackets	Q6

FOCUS 5 TASK 1A
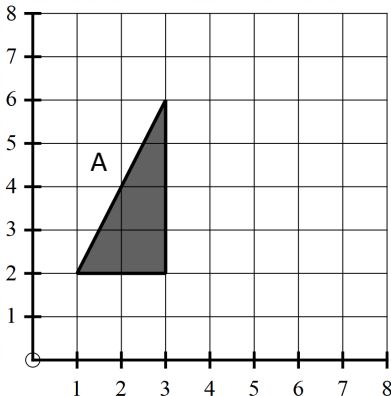
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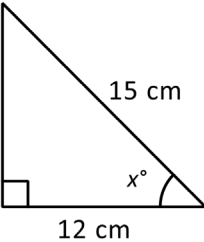
SKILLS CHECK

Work out 517 + 358	Work out 24 × 32	Work out $\frac{3}{4} + \frac{1}{5}$	Divide £350 in the ratio 3 : 11
Work out 852 - 664	Work out 884÷26	What is 85% of £480?	Solve 5x – 2 = 2x + 19

QUESTION 1

Hazel asked 100 adults about types of films they enjoyed. Complete the 2 way table

	Comedy	Action	Thriller	Total
Men		19		47
Women	25			
Total		35	29	

QUESTION 2

Work out
a) 2.2^5 (answer correct to 2 d.p.)

b) 67% of £45.00

QUESTION 3

Complete the table of values for $y = x^2 - 1$ and plot the graph

x	-2	-1	0	1	2	3
y			-1			

QUESTION 4

A recipe for 6 people uses 250g of flour. How much flour will be needed to make the recipe for 15 people?

QUESTION 5

Here is a Venn diagram

Write down the numbers that are in set
$A \cup B$

$A \cap B$

QUESTION 6

A car travels for 2 hours 15 minutes at an average speed of 64 mph. Calculate the distance travelled.

FOCUS 5 TASK 1B

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SKILLS CHECK

Work out 658 + 184	Work out 35 × 34	Work out $\frac{3}{8} - \frac{1}{5}$	Divide £180 in the ratio 7 : 5
Work out 706 - 325	Work out 1404÷26	What is 15% of £54?	Solve 6(x + 1) = 3
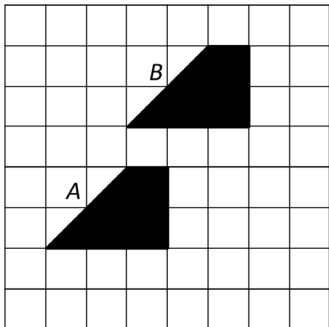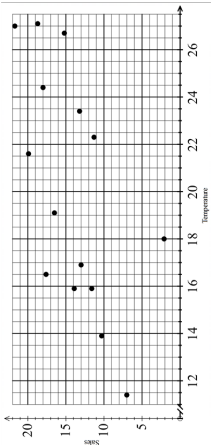
QUESTION 1	QUESTION 2	QUESTION 3
Solve the simultaneous equations 2x + y = 3 x + y = 1	Calculate x Give your answer to the nearest degree 15 cm x° 12 cm	Estimate $$\frac{453 + 254}{5.2 \times 3.8}$$

QUESTION 4	QUESTION 5	QUESTION 6
Calculate 15% of £420 Increase £320 by 10%	Express $\frac{3}{20}$ as a percentage The ratio of blue counters to red counters in a bag is 3 : 5. What fraction of the counters are red?	Reflect triangle A in the line x = 4. Label your triangle B

FOCUS 5 TASK 1C

NAME _____

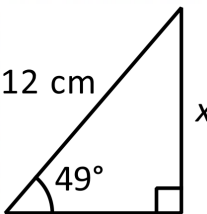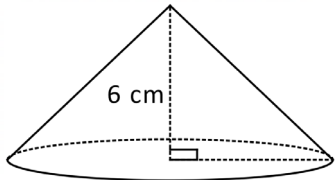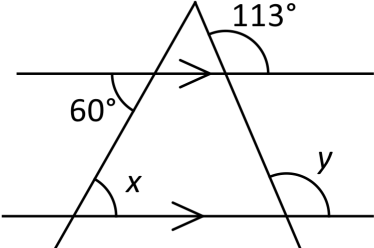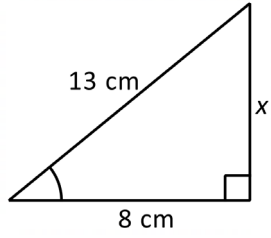## SKILLS CHECK

Work out 78 + 478	Work out 3.5 × 14	Work out $\frac{3}{8} \times \frac{1}{6}$	Divide £168 in the ratio 2 : 5
Work out 824 - 698	Work out 1134÷18	What is 2% of £540?	Solve 5x – 3 = 15 - x

QUESTION 1	QUESTION 2	QUESTION 3
If the exchange rate is £1 = $1.25 Work out the missing values a) £500 =$..... b) $30.50 = £	Express 120 as the product of prime factors	The table shows the probability of picking different colour pins from a box

The table for Question 3:

Colour	Red	Green	Blue	Pink
Probability	0.2		0.3	0.1

Calculate the probability of picking Green

Calculate the probability of picking Red or Pink

QUESTION 4	QUESTION 5	QUESTION 6
Calculate an estimate of the mean height.	Describe the single transformation that maps shape A onto shape B	The average temperature and number of ice creams sold is recorded. a) Circle the result which is an outlier. b) Plot a line of best fit and use this to estimate the sales for a temperature of 20

Question 4 table:

Height	f		
0 ≤ h < 5	21		
5 ≤ h< 10	5		
10 ≤ h < 15	9		
15 ≤ h < 20	3		
20 ≤ h < 25	2		

FOCUS 5 TASK 1D

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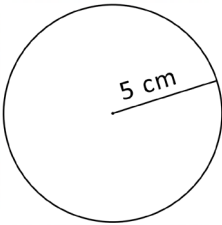
SKILLS CHECK

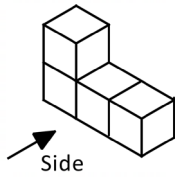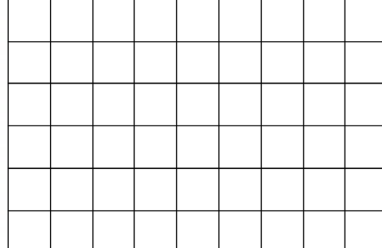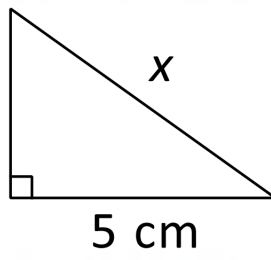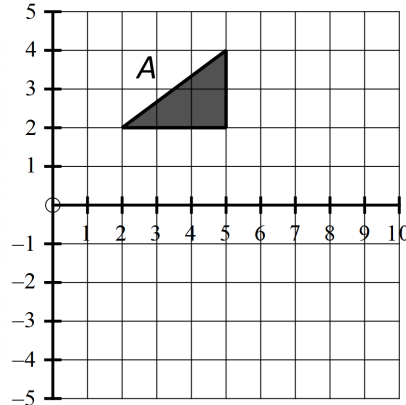| Work out 685 + 197	Work out 2.8 ×1.2	Work out $\frac{3}{5} \div \frac{2}{15}$	Divide £231 the ratio 4 : 7
Work out 905 - 469	Work out 901÷17	What is 2.5% of £80?	Solve $\frac{x-4}{5} = 2$

QUESTION 1	QUESTION 2	QUESTION 3
Simplify $$2a^3 \times 3a$$ Write 3^{-2} as a fraction	Calculate x Give your answer correct to 1 d.p. 12 cm x 49°	Calculate the volume of the cone using $V = \frac{1}{3}\pi r^2 h$ 6 cm Radius = 7 cm (Answer correct to 1 d.p.)
QUESTION 4	QUESTION 5	QUESTION 6
Express in standard form 102000 0.000001	Calculate the value of x and y 113° 60° x y	Calculate x Give your answer correct to 1 d.p. 13 cm x 8 cm

FOCUS 5 TASK 1E
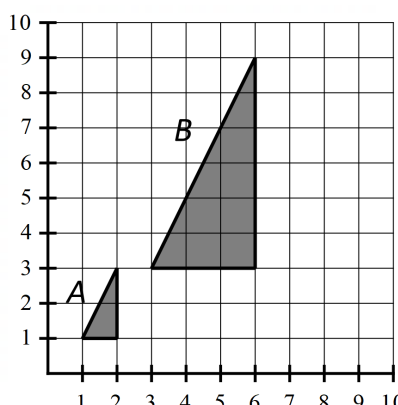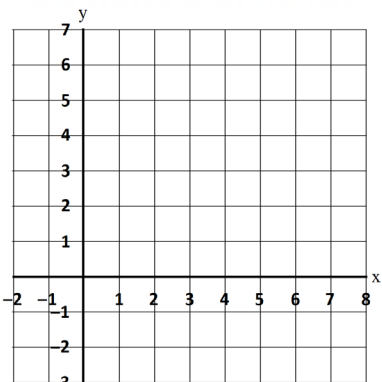
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SKILLS CHECK

Work out 872 + 48	Work out 36 × 3.6	Work out $\frac{3}{4} + \frac{1}{5}$	Divide £350 in the ratio 3 : 11
Work out 602 - 487	Work out 1248÷26	What is 95% of £640?	Solve 2x = 6 - x

QUESTION 1	QUESTION 2	QUESTION 3
Calculate the area Give your answer correct to 1 d.p. 5 cm	Draw the plan and side elevation Side	Expand and simplify $$3(2x + 1) + 2(x - 2)$$
QUESTION 4	**QUESTION 5**	**QUESTION 6**
Find the nth term of 0, 4, 8, 12, 16….. How many terms are less than 100?	Calculate x Give your answer correct to 1 d.p. 4 cm x 5 cm	Rotate triangle A, 90⁰ clockwise about centre (0,0) .Label your triangle B.

FOCUS 5 TASK 1F

NAME _____

SKILLS CHECK

Work out 655 + 247	Work out 24 × 32	Work out $\frac{3}{4} - \frac{1}{5}$	Divide £350 in the ratio 3 : 2
Work out 805 - 694	Work out 1710÷45	What is 55% of £560?	Solve $$\frac{5x}{8} - 1 = 4$$

QUESTION 1

Calculate the mean

x	f
1	3
2	10
3	12
4	10
5	5

What is the modal value?

QUESTION 2

$a = \begin{pmatrix} 3 \\ -4 \end{pmatrix}$ and $b = \begin{pmatrix} 2 \\ 5 \end{pmatrix}$

Work out as column vectors

a) $a + b$

b) $3a - b$

QUESTION 3

Describe fully the transformation that maps shape A onto B

QUESTION 4

Write down the largest integer which satisfies the inequality
$$6x - 5 < 13$$

QUESTION 5

Complete the table of values for $y = 2x + 1$ and plot the graph

x	-2	-1	0	1	2	3
y		-1				

QUESTION 6

Expand and simplify
$$(x + 3)(x + 5)$$