HAA5.1

1) Solve simultaneously $3x - 3y = 9$ and $2x - y = 9$

2) One solution of $cos\, x = 0.939692$ is $x = 20°$
What is the other solution in the range $0° \leq x < 360°$?

3) Find the 50th term of the sequences 7, -1, -9, -17, -25, …

4) Find $fg(x)$ where $f(x) = 3x + 2$ and $g(x) = x^2$

5) Simplify $\frac{2}{x+3} - \frac{x}{x+2}$

HAA5.2

1) Shape B is an enlargement of shape A with scale factor 3.
If the area of shape B is 36cm², what is the area of shape A?

2) Work out $4 \times 10^6 \times 6 \times 10^5$, giving your answer in standard form

3) Solve using the quadratic formula (and a calculator)
$5x^2 - 3x - 6 = 0$

4) Evaluate 9^{-2} and $9^{\frac{1}{2}}$

5) The value of x is given as 230 rounded to 2 significant figures.
State the upper and lower bounds

HAA5.3

1) Solve simultaneously $3x - 4y = 26$ and $5x + 3y = 24$

2) One solution of $sin\, x = 0.422618 \ldots$ is $x = 25°$
What is the other solution in the range $0° \leq x < 360°$?

3) Find the 50th term of the sequences -8, -1, 6, 13, …

4) Find $gf(x)$ where $f(x) = 3x + 2$ and $g(x) = x^2$

5) Simplify $\frac{3}{2x+6} + \frac{3x-5}{x+3}$

HAA5.4

1) Shape B is an enlargement of shape A with scale factor 4.
If the area of shape B is 48cm², what is the area of shape A?

2) Work out $3.2 \times 10^5 \times 4 \times 10^7$, giving your answer in standard form

3) Solve using the quadratic formula (and a calculator)
$2.3x^2 + 4.5x - 6.7 = 0$

4) Evaluate $8^{\frac{2}{3}}$ and $4^{\frac{3}{2}}$

5) The value of x is given as 8.9 rounded to 1 decimal place.
State the upper and lower bounds

HAA5.5

1) Solve simultaneously $3x + 4y = 14$ and $x + 6y = 7$

2) One solution of $sin\, x = -0.342020\ldots$ is $x = 200°$
What is the other solution in the range $0° \leq x < 360°$?

3) Find the 100th term of the sequences 46, 52, 58, 64, …

4) Find $fg(x)$ where $f(x) = 3x + 8$ and $g(x) = x^2 - 6$

5) Simplify $\frac{2}{x+3} - \frac{5}{x}$

HAA5.6

1) Shape B is an enlargement of shape A with scale factor 3.
If the area of shape A is 36cm², what is the area of shape B?

2) Work out $(3.2 \times 10^9) \div (4 \times 10^4)$, giving your answer in standard form

3) Solve using the quadratic formula (and a calculator)
$1.2x^2 + 3.4x = 0$

4) Evaluate 4^{-2} and $4^{-\frac{1}{2}}$

5) The value of x is given as 400 rounded to **2** significant figures.
State the upper and lower bounds