

FAA1.1



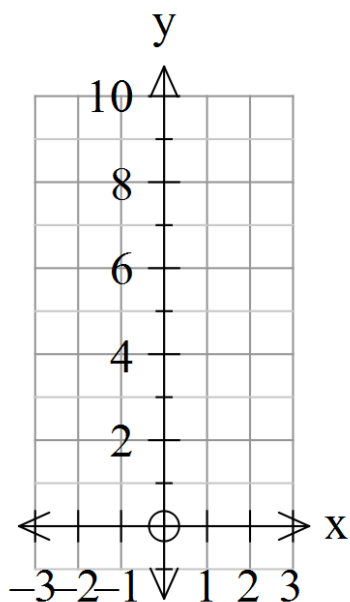
1) Express 603000 in standard form

2) Expand  $4x^2(2x - 3)$

3) Work out  $3.8^2$

4) Round 38492 correct to 2 significant figures

5) What is the gradient of  $y = -2x + 3$



FAA1.2

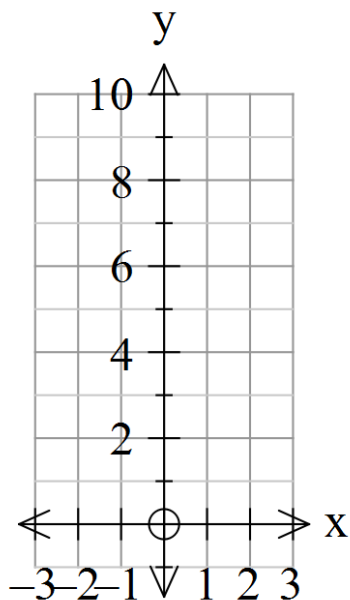


- 1) Round 6.148 km to the nearest 10 m
  
  
  
  
  
  
  
  
  
  
- 2) Sales rise from 800 per week to 920 per week. Calculate the percentage change
  
  
  
  
  
  
  
  
  
  
- 3) If 7 pens cost £3.15, how much would 10 pens cost?
  
  
  
  
  
  
  
  
  
  
- 4) Solve the equation  $7x + 6 = 3x - 2$
  
  
  
  
  
  
  
  
  
  
- 5) What is the exact value of  $\cos 45^\circ$ ?

FAA1.3



- 1) Express 340500 in standard form
  
  
  
  
  
  
  
  
  
  
- 2) Expand  $3x(2x + 4x^2)$
  
  
  
  
  
  
  
  
  
  
- 3) Work out  $4.6 \times 28$
  
  
  
  
  
  
  
  
  
  
- 4) Round 4567 correct to 2 significant figures
  
  
  
  
  
  
  
  
  
  
- 5) What is the gradient of  $y = 3x - 1$

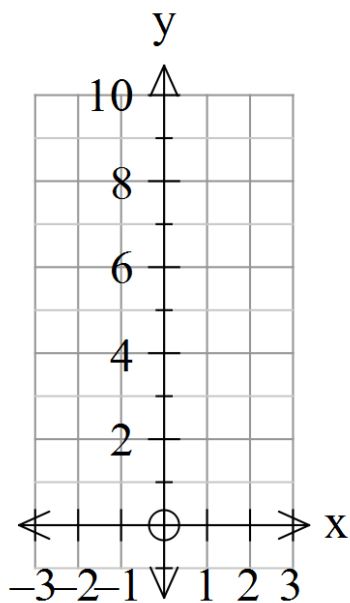




FAA1.5



- 1) Express 5010000 in standard form
  
  
  
  
  
  
  
  
  
  
- 2) Expand  $2x^2(4 - 3x)$
  
  
  
  
  
  
  
  
  
  
- 3) Work out  $7.3^2$
  
  
  
  
  
  
  
  
  
  
- 4) Round 7348 correct to 2 significant figures
  
  
  
  
  
  
  
  
  
  
- 5) What is the gradient of  $y = 8 - 2x$





- 1) Round 42.382m to the nearest cm
  
  
  
  
  
  
  
  
  
  
- 2) Sales rise from 300 per week to 660 per week. Calculate the percentage change
  
  
  
  
  
  
  
  
  
  
- 3) If 8 pens cost £11.20, how much would 12 pens cost?
  
  
  
  
  
  
  
  
  
  
- 4) Solve the equation  $8 - 2x = 3x - 7$
  
  
  
  
  
  
  
  
  
  
- 5) What is the exact value of  $\cos 45^\circ$ ?

FAA2.1



1) Express 0.000307 in standard form

2) Expand and simplify  $(x + 7)(x + 3)$

3) Factorise  $42x - 24$

4) Work out  $3900 \div 12$

5) Increase £360 by 15%

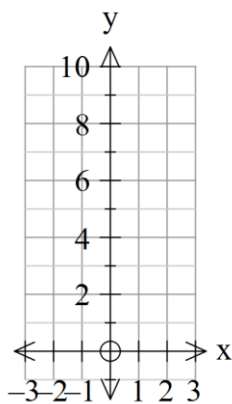
FAA2.2



1) A mass is stated as 70g correct to the nearest 10g.  
What is the lower bound?

2) Find the next two terms in the sequence 8, 4, 2, 1, ...

3) Find the y-intercept of the line  $2y = 4x + 6$



4) Solve simultaneously

$$x + y = 5$$

$$2x + 4y = 14$$

5) Work out  $\frac{4}{5} - \frac{3}{4}$



FAA2.3



1) Express 0.005006 in standard form

2) Expand and simplify  $(x + 1)(x + 10)$

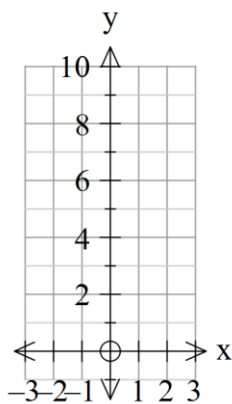
3) Factorise  $81x - 18$

4) Work out  $4332 \div 12$

5) Increase £310 by 5%



- 1) A length is stated as 3200m correct to the nearest 100m.  
What is the lower bound?
  
  
  
  
  
  
  
  
  
  
- 2) Find the next two terms in the sequence 3, 6, 11, 18, 27,
  
  
  
  
  
  
  
  
  
  
- 3) Find the y-intercept of the line  $3y = 12x + 6$



- 4) Solve simultaneously  
$$x + y = 7$$
$$3x - 2y = 11$$
  
  
  
  
  
  
  
  
  
  
- 5) Work out  $\frac{5}{6} + \frac{3}{4}$

FAA2.5



1) Express 0.00037 in standard form

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

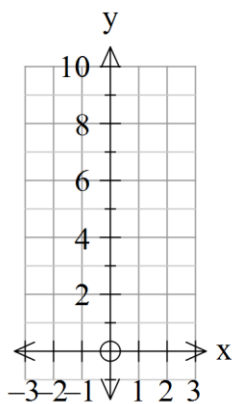
3) Factorise  $12x - 90$

4) Work out  $5475 \div 15$

5) Increase £430 by 5%



- 1) A length is stated as 400m correct to the nearest 10m.  
What is the lower bound?
  
  
  
  
  
  
  
  
  
  
- 2) Find the next two terms in the sequence 49, 64, 81, 100, ...
  
  
  
  
  
  
  
  
  
  
- 3) Find the y-intercept of the line  $2y - 3x = 6$



- 4) Solve simultaneously  
 $4x + y = 19$   
 $x + 2y = 10$
  
  
  
  
  
  
  
  
  
  
- 5) Work out  $\frac{5}{8} - \frac{5}{12}$

FAA3.1



1) Simplify  $x^8 \div x^2$

2) Expand and simplify  $(x - 7)(x - 3)$

3) Factorise  $x^2 + 5x - 24$

4) Solve simultaneously  
 $5x - y = 17$  and  $2x + y = 11$

5) If it takes 6 hours for 2 workers to paint a fence, how long would it take 3 workers?

FAA3.2



- 1) A measure is given as 65m to the nearest 5m.  
What is the upper bound?
- 2) Work out  $\frac{3}{4} \div \frac{2}{7}$  giving your answer as a mixed number
- 3) Round 0.030487 to 2 significant figures
- 4) Does the point ( 2 , 6 ) lie on the line  $y = 5x - 4$  ?
- 5) State the exact value of  $\cos 45^\circ$

FAA3.3



1) Simplify  $6x^8 \div 2x^2$

2) Expand and simplify  $(x - 8)(x - 4)$

3) Factorise  $x^2 + 13x + 40$

4) Solve simultaneously  
 $3x + 2y = 23$  and  $4x + 3y = 32$

5) If it takes 6 days for 4 workers to build a garage, how long would it take 3 workers?

FAA3.4



- 1) A measure is given as 6km to the nearest 500m.  
What is the lower bound?
  
  
  
  
  
  
  
  
  
  
- 2) Work out  $\frac{4}{5} \div \frac{3}{11}$  giving your answer as a mixed number
  
  
  
  
  
  
  
  
  
  
- 3) Round 491 to 1 significant figure
  
  
  
  
  
  
  
  
  
  
- 4) Does the point ( 3 , 6 ) lie on the line  $y = 3x - 4$  ?
  
  
  
  
  
  
  
  
  
  
- 5) State the exact value of  $\sin 30^\circ$





FAA3.6



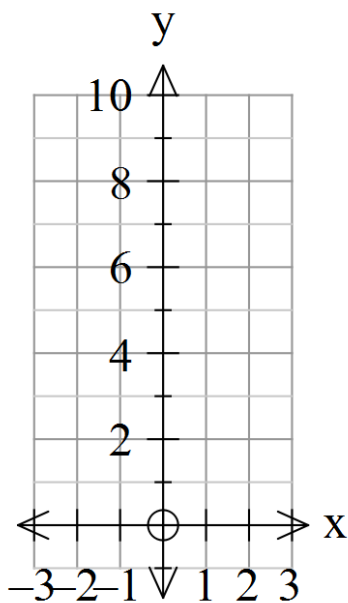
- 1) A measure is given as 6m to the nearest 10cm.  
What is the lower bound?
  
  
  
  
  
  
  
  
  
  
- 2) Work out  $\frac{5}{8} \div \frac{1}{6}$  giving your answer as a mixed number
  
  
  
  
  
  
  
  
  
  
- 3) Round 0.0347 to 2 significant figures
  
  
  
  
  
  
  
  
  
  
- 4) Does the point ( 4 , 3 ) lie on the line  $y = 2x - 5$  ?
  
  
  
  
  
  
  
  
  
  
- 5) State the exact value of  $\cos 30^\circ$



FAA4.2



- 1) Express as an inequality, the error interval when  $t$  is given as 60 to one significant figure.
  
- 2) Solve  $2x^2 + 3x = 0$
  
- 3) The price of an item increased from £24 to £30. Calculate the percentage change.
  
- 4) A car travels 48km in 1 hour 20 minutes. Calculate the average speed.
  
- 5) Sketch the graph of  $y = x^2 + 1$

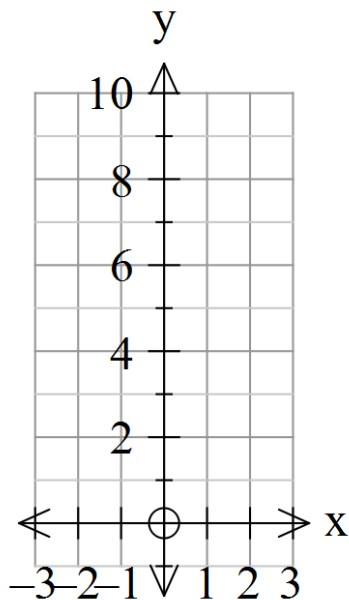




FAA4.4



- 1) Express as an inequality, the error interval when  $p$  is given as 3.8 to one decimal place.
  
- 2) Solve  $5x^2 - 10x = 0$
  
- 3) The price of an item decreased from £40 to £28. Calculate the percentage change.
  
- 4) A car travels at 60km/hr for 1 hour 50 minutes. Calculate the distance travelled.
  
- 5) Sketch the graph of  $y = x^2$



FAA4.5



1) Work out  $4.8 \times 10^4 - 4.8 \times 10^2$

2) Expand and simplify  $(x - 6)(x - 6)$

3) Factorise  $x^2 + 2x - 8$

4) A necklace is sold for £400 making a profit of 25%. What was the original price of the car?

5) Work out  $\frac{3}{4} - \frac{2}{5}$

FAA4.6



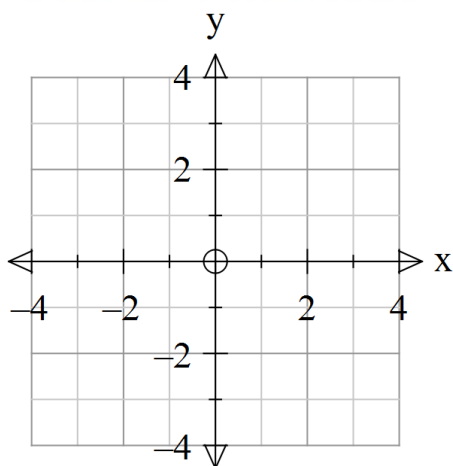
1) Express as an inequality, the error interval when  $t$  is given as 8 to one significant figure.

2) Solve  $x^2 + 4x = 0$

3) The price of an item increased from £80 to £92. Calculate the percentage increase.

4) A cyclist covers 14km in 40 minutes. Calculate her average speed.

5) Sketch the graph of  $y = \frac{1}{x}$





FAA5.1



- 1) Work out  $3.6 \times 10^2 \times 2 \times 10^3$
- 2) Factorise  $x^2 - x - 12$
- 3) Find the gradient of the line through  $(2,7)$  and  $(4,13)$
- 4) Round  $0.30496$  correct to 2 decimal places
- 5) Work out  $24 \div 0.5$

FAA5.2



- 1) Express as an inequality, the error interval when  $x$  is given as 120 to 2 significant figures
  
- 2) Solve simultaneously  $2x + y = 0$  and  $3x + 2y = 3$
  
- 3) Find the 30<sup>th</sup> term of the sequence -3, 3, 9, 15, ...
  
- 4) A block of density of  $20\text{g/cm}^3$  has a mass of 10g.  
Calculate its volume
  
- 5) Work out  $1\frac{2}{3} \times 2\frac{3}{4}$

FAA5.3



1) Work out  $(3.6 \times 10^5) \div (2 \times 10^3)$

2) Factorise  $x^2 - 9x + 18$

3) Find the gradient of the line through  $(12,7)$  and  $(14,1)$

4) Truncate 4596 correct to 2 significant figures

5) Work out  $360 \div 0.02$

FAA5.4



- 1) Express as an inequality, the error interval when  $x$  is given as 120 to the nearest integer
  
- 2) Solve simultaneously  $3x + 2y = 19$  and  $2x + 7y = 24$
  
- 3) Find the 50<sup>th</sup> term of the sequence 7, 16, 25, 34, ...
  
- 4) A block of volume of  $20\text{cm}^3$  has a mass of 5g.  
Calculate its density in  $\text{g/cm}^3$
  
- 5) Work out  $2\frac{2}{3} \div \frac{3}{4}$

FAA5.5



- 1) Work out  $(5 \times 10^4) \times (3 \times 10^7)$
  
- 2) Factorise  $x^2 + 3x - 18$
  
- 3) Find the gradient of the line through  $(3, 7)$  and  $(7, 9)$
  
- 4) Truncate  $24.836$  correct to 1 decimal place
  
- 5) Work out  $72 \div 0.03$

FAA5.6



- 1) Express as an inequality, the error interval when  $x$  is given as 1.2 to 1 decimal place
  
- 2) Solve simultaneously  $3x + 2y = 1$  and  $5x + 3y = 1$
  
- 3) Find the 100<sup>th</sup> term of the sequence 5, 16, 27, 38, ...
  
- 4) A block of density  $20\text{g/cm}^3$  has a mass of 5g.  
Calculate its volume
  
- 5) Work out  $2\frac{2}{3} + 5\frac{3}{4}$

FAA6.1



1) Work out  $(6 \times 10^6) \div (3 \times 10^2)$

2) Factorise  $x^2 - 16$

3) Find the equation of the straight line passing through the points (0,3) and (2,9)

4) If it takes 3 workers 6 hours to complete a task, how many hours would it take 4 workers?

5) Work out  $0.8 \div 0.02$

FAA6.2



- 1) Factorise  $x^2 - 9x + 18$
  
  
  
  
  
  
  
  
  
  
- 2) **Truncate** 23.085 correct to 1 decimal place
  
  
  
  
  
  
  
  
  
  
- 3) Work out  $2\frac{1}{3} \div \frac{3}{5}$
  
  
  
  
  
  
  
  
  
  
- 4) State the exact value of  $\sin 30^\circ$
  
  
  
  
  
  
  
  
  
  
- 5) Solve simultaneously  $2x + y = 5$  and  $3x - 2y = 18$





- 1) Work out  $(5 \times 10^4) \times (3 \times 10^2)$ ,  
giving your answer in standard form
  
- 2) Factorise  $x^2 - 100$
  
- 3) Find the equation of the straight line passing through the points  
 $(0, -3)$  and  $(1, 0)$
  
- 4) If 210g of flour are needed to make 12 cakes, how much flour will  
be needed for 15 cakes?
  
- 5) Factorise  $x^2 - 9x + 20$

FAA6.4



1) Work out  $\frac{0.03 \times 1.2}{0.02}$

2) **Truncate** 17.352 correct to 1 decimal place

3) Work out  $2\frac{1}{3} + 2\frac{4}{5}$

4) State the exact value of  $\tan 30^\circ$

5) Solve simultaneously  $3x + 3y = 24$  and  $x + 2y = 11$



