

96. Plotting Linear Graphs

Practice Questions:

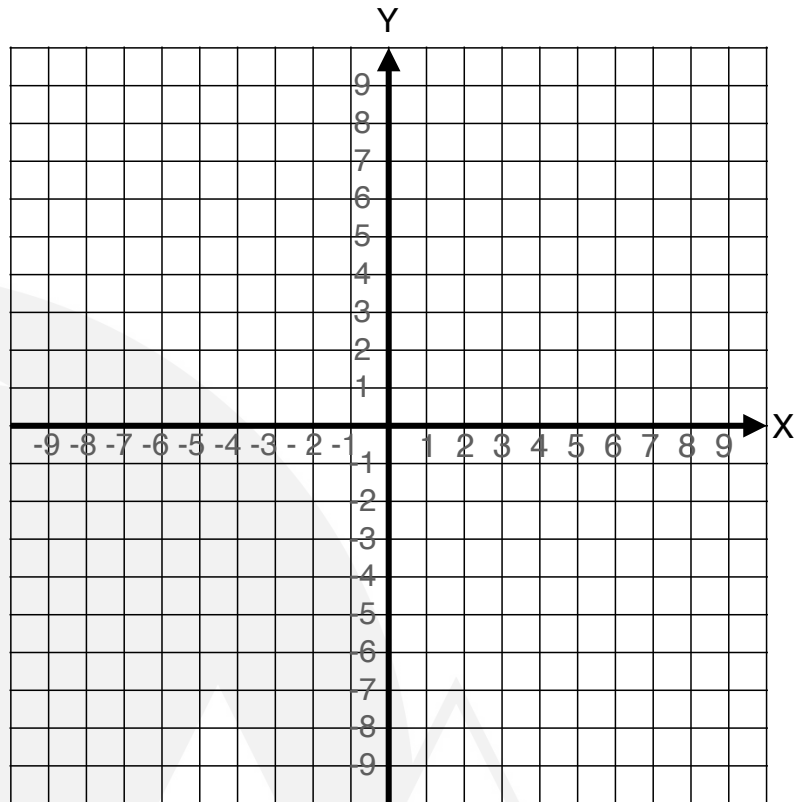
1. Plot and label the following lines on the set of axis

a) $y = 3$

b) $x = -2$

c) $y = -5$

d) $x = 8$



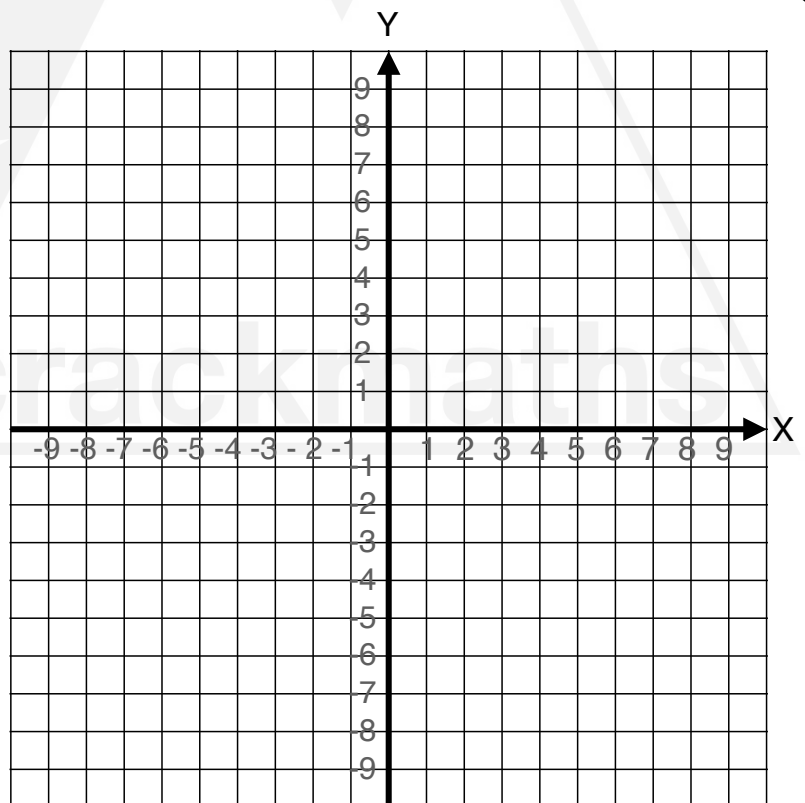
2. Plot and label the following lines on the set of axis

a) $y = 7$

b) $x = -8$

c) $y = -6$

d) $x = 0$



96. Plotting Linear Graphs

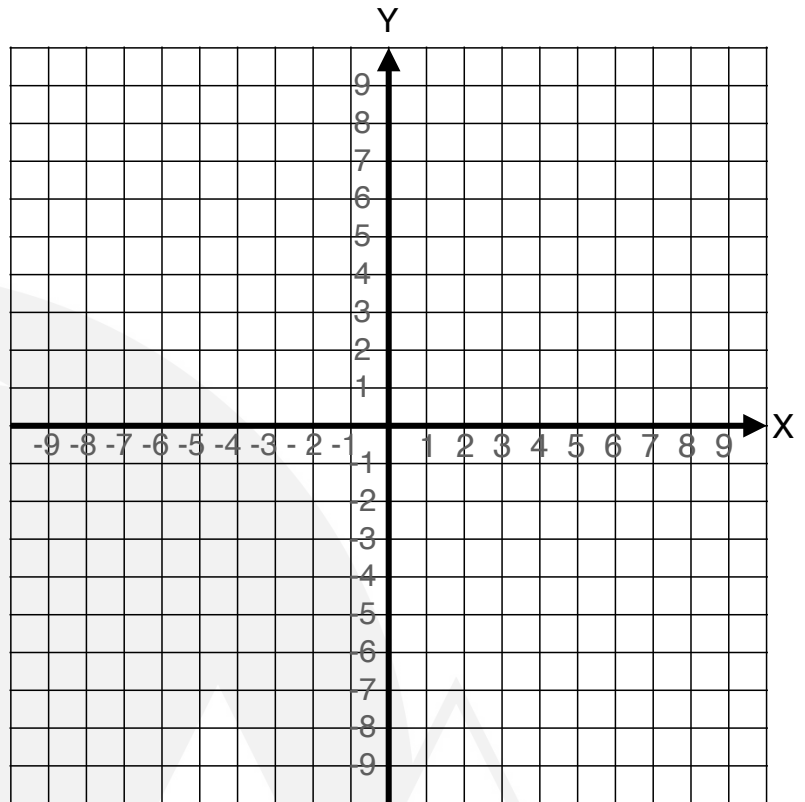
Practice Questions:

3. Plot and label the following lines on the set of axis

a) $y = x$

b) $y = x + 2$

c) $y = x - 5$

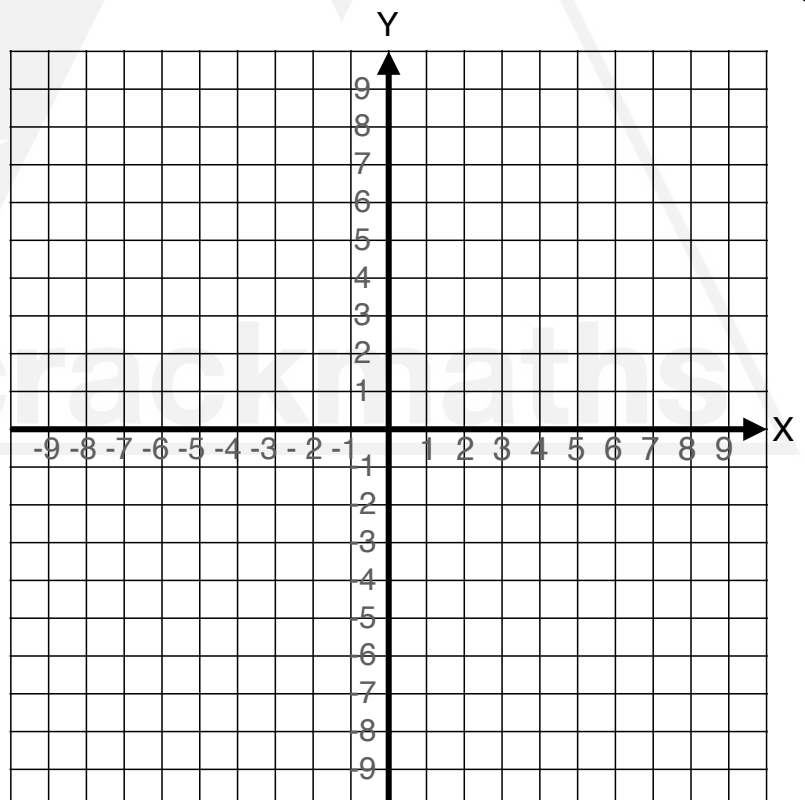


4. Plot and label the following lines on the set of axis

a) $y = -x$

b) $x = -x + 5$

c) $y = -x - 4$

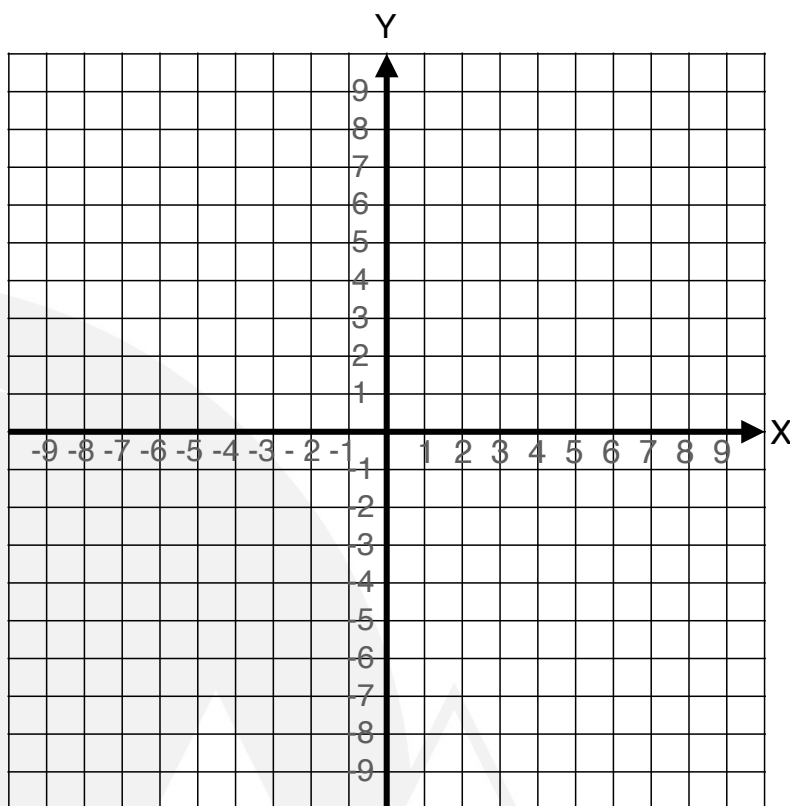


96. Plotting Linear Graphs

Practice Questions:

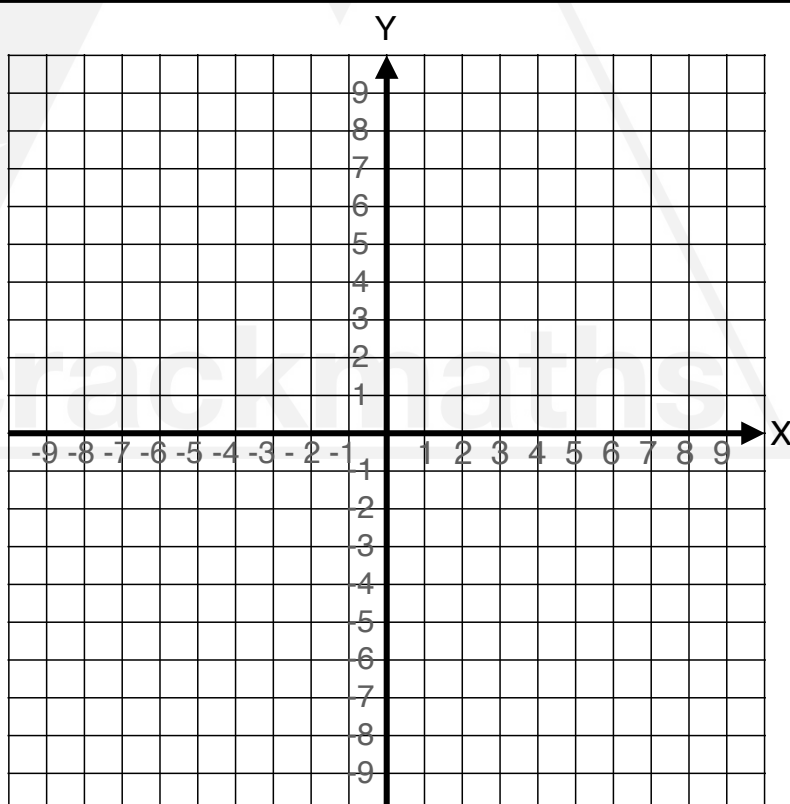
5. Complete the table and plot the coordinates to form the straight line graph for $y = 2x + 1$, for values of x from -3 to 3 inclusive.

X	-3	-2	-1	0	1	2	3
Y							



6. Complete the table and plot the coordinates to form the straight line graph for $y = -2x + 1$, for values of x from -3 to 3 inclusive.

X	-3	-2	-1	0	1	2	3
Y							

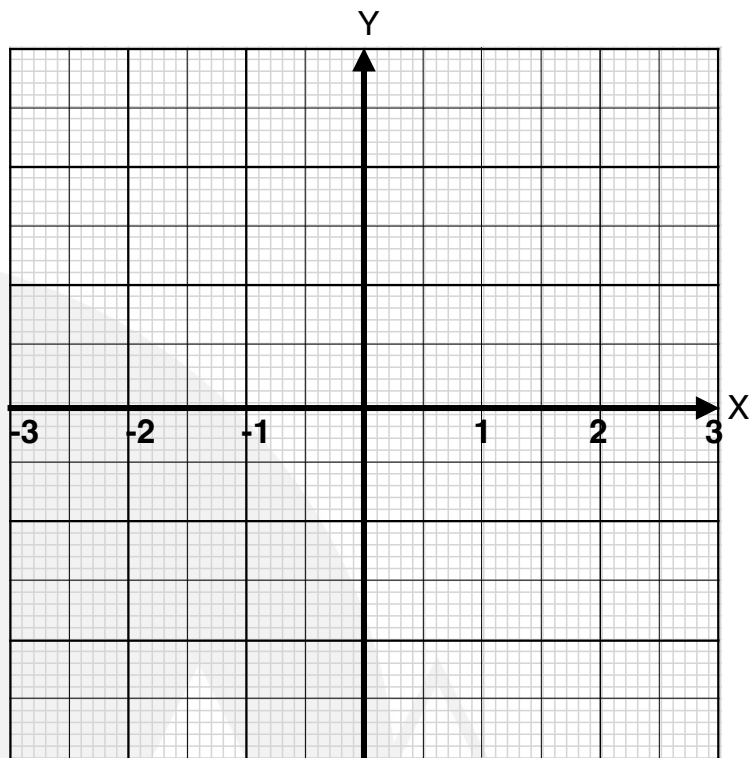


96. Plotting Linear Graphs

Practice Questions:

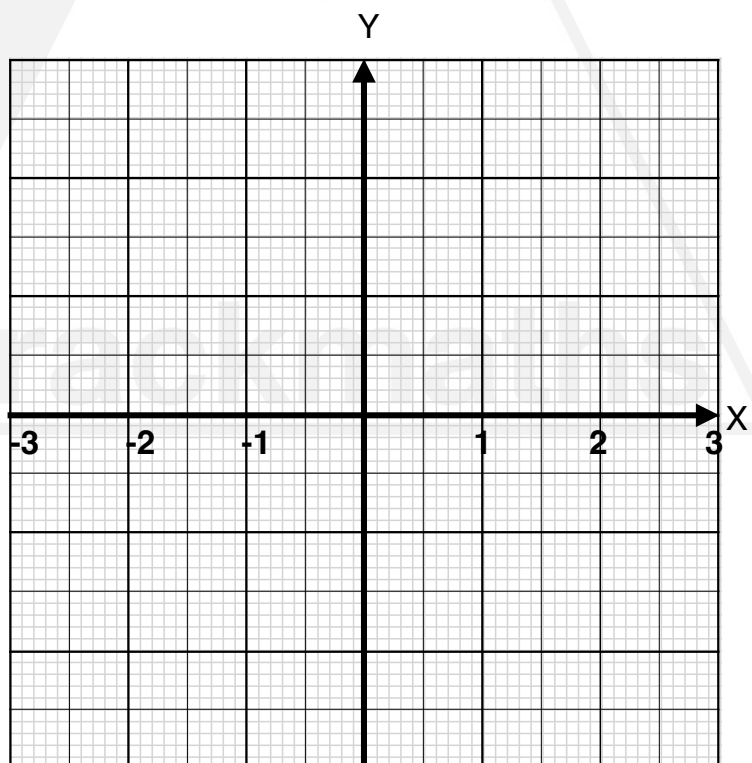
7. Complete the table and plot the coordinates to form the straight line graph of $y = 2x + 5$, for values of x from -3 to 3 inclusive. Use an appropriate scale for the y -axis.

X	-3	-2	-1	0	1	2	3
Y							



8. Complete the table and plot the coordinates to form the straight line graph of $y = 2 - 3x$, for values of x from -3 to 3 inclusive. Use an appropriate scale for the y -axis.

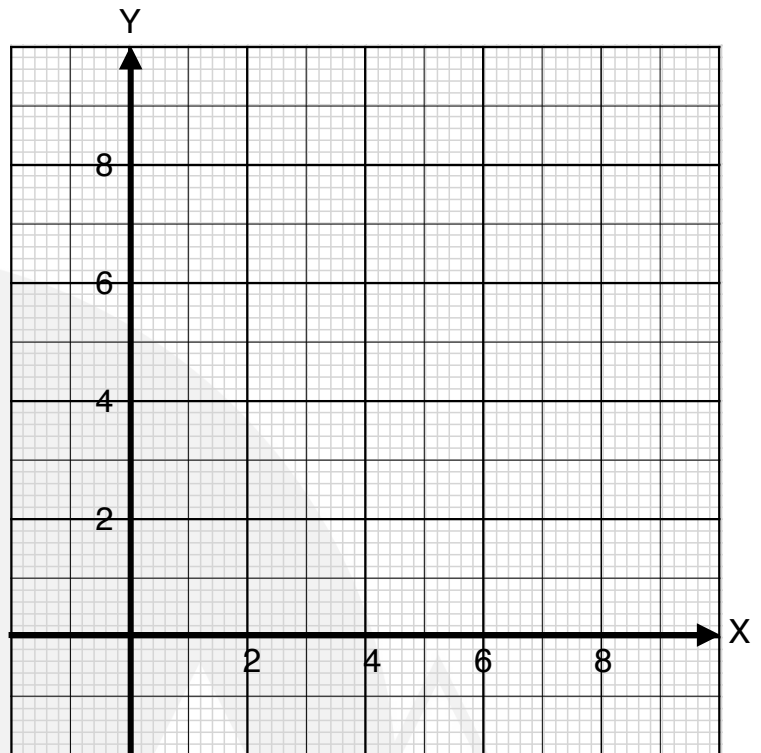
X	-3	-2	-1	0	1	2	3
Y							



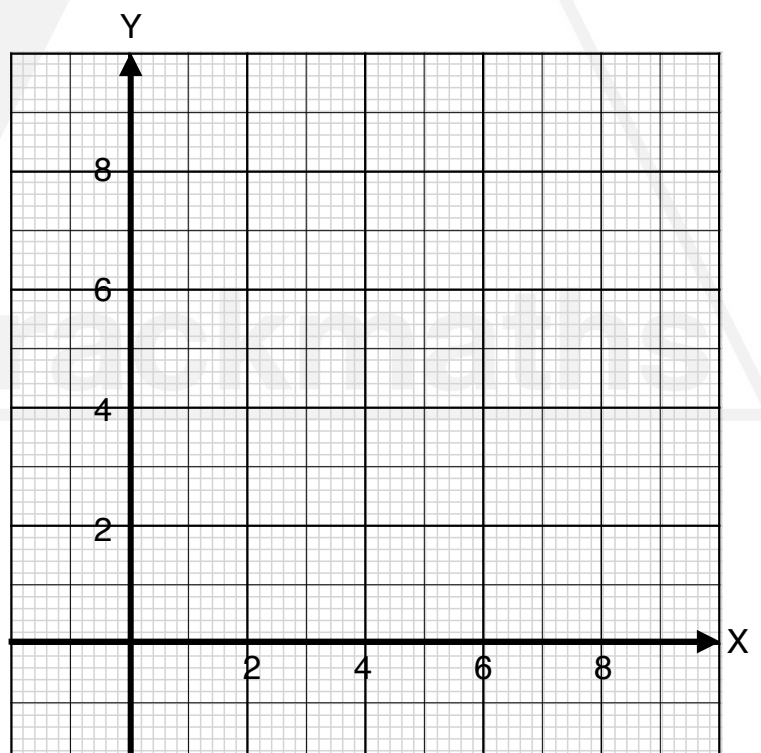
96. Plotting Linear Graphs

Practice Questions:

9. By identifying the points where the equation $2x + y = 8$ crosses the coordinate axis, plot its graph.



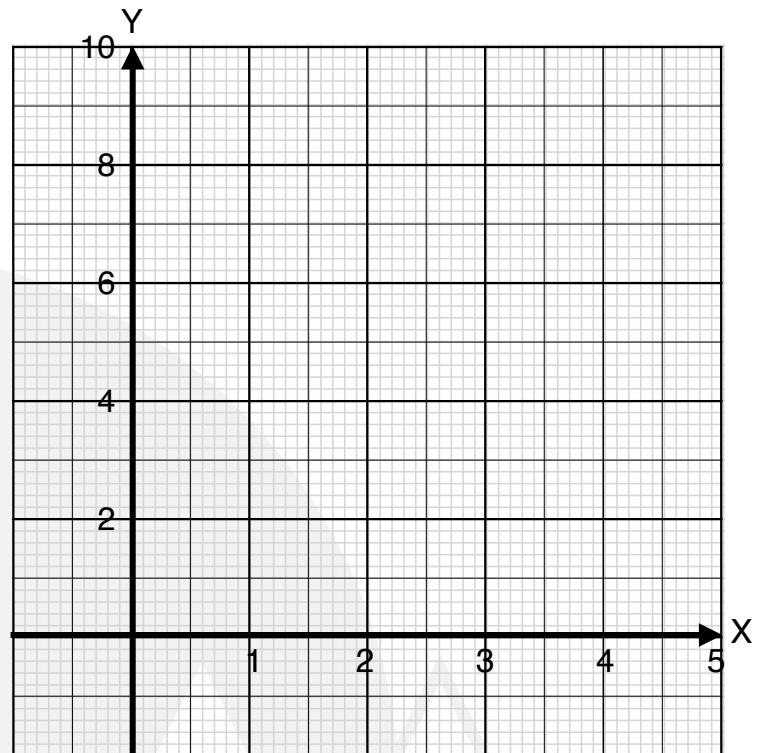
10. By identifying the points where the equation $x + 3y = 9$ crosses the coordinate axis, plot its graph.



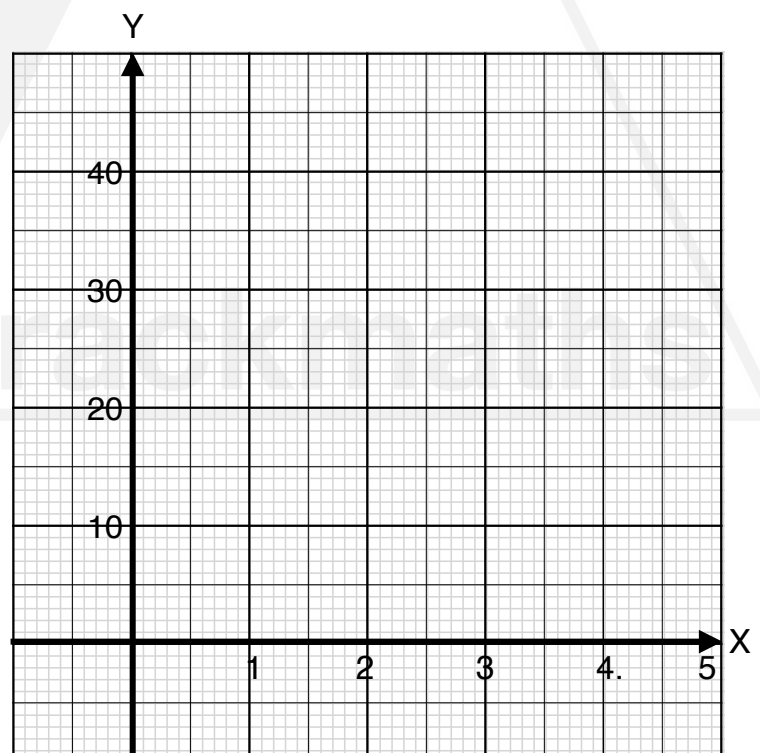
96. Plotting Linear Graphs

Scenario Questions:

1. A taxi charges according to the equation $y = 2x + 3$, where y is the cost in £ and x is the number of miles. Plot the graph for $x = 0$ to 5.



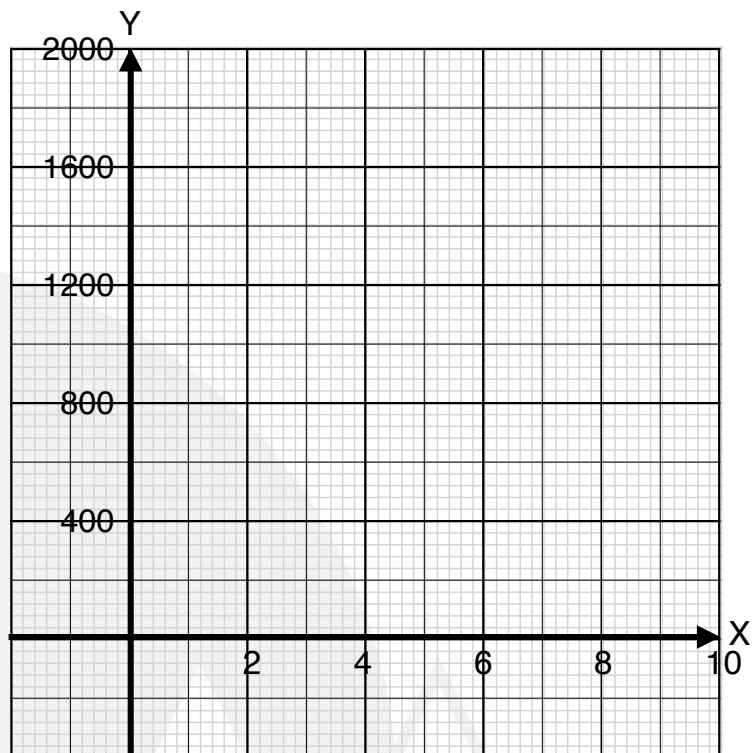
2. A phone company charges according to the equation $y = 5x + 10$, where y is the total monthly cost in £ and x is the number of GB of data. Plot the graph for $x = 0$ to 5.



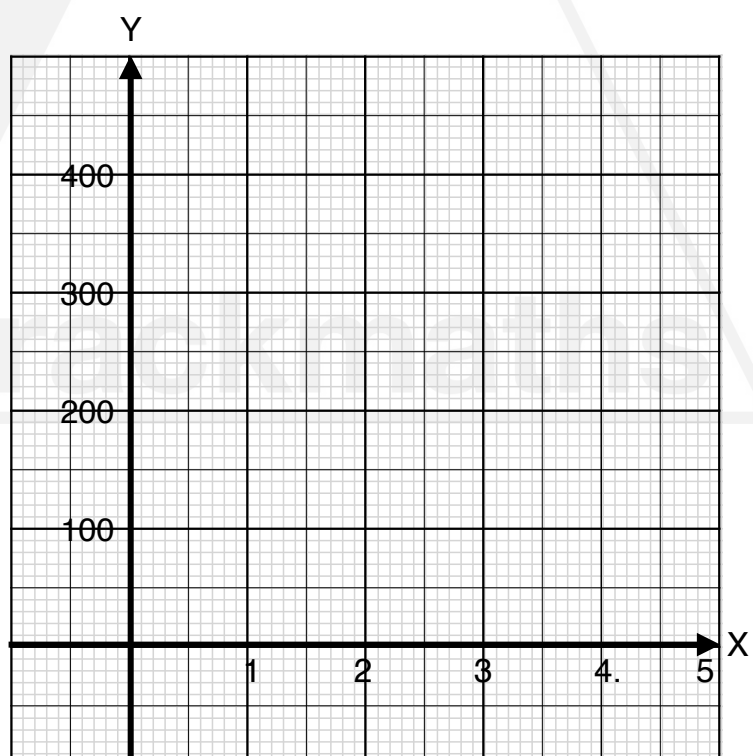
96. Plotting Linear Graphs

Scenario Questions:

3. A jug is filled with water at a steady rate. The volume is given by $y = 200x$, where y is the volume in ml and x is the time in seconds. Plot the graph for $x = 0$ to 10.



4. A train travels at a constant speed. The distance is given by $y = 60x$, where y is the distance in km and x is the time in hours. Plot the graph for $x = 0$ to 5. Use an appropriate scale on the y-axis.



96. Plotting Linear Graphs

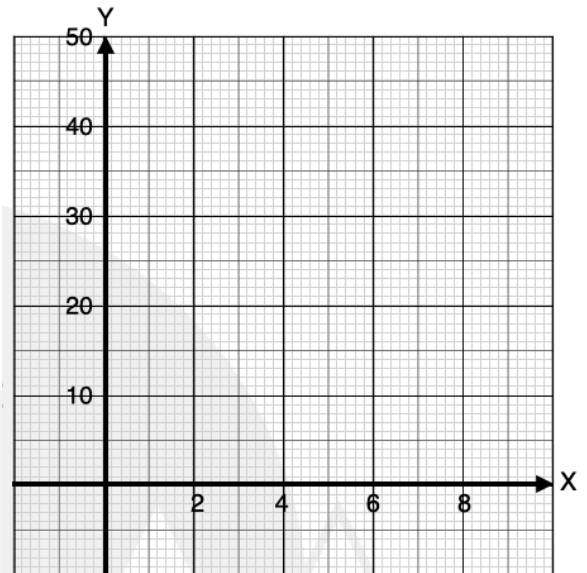
Scenario Questions:

5. A streaming service offers two subscription options:

Option A: $y = 4x + 10$

Option B: $y = 6x$

(where y is the total cost in £ and x is the number of months).



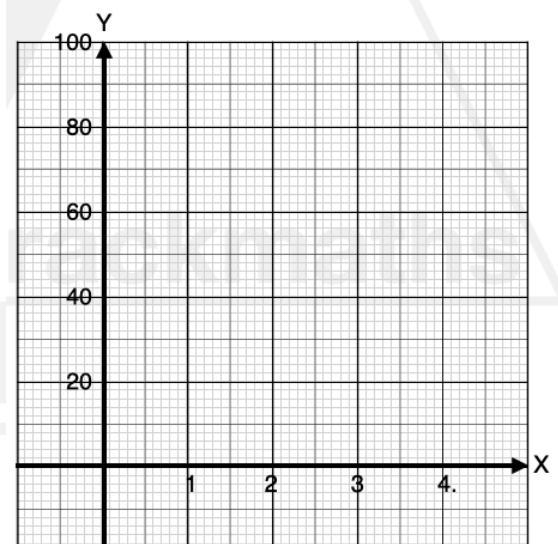
Plot both graphs for $x = 0$ to 8. Use your graph to find after how many months both options cost the same.

6. A gym offers two membership plans:

Plan A: $y = 15x + 20$

Plan B: $y = 25x$

(where y is the total cost in £ and x is the number of sessions attended)



Plot both graphs for $x = 0$ to 4. Use your graph to find how many sessions make the two plans costs equal.

96. Plotting Linear Graphs

Scenario Questions:

7. A taxi company charges according to the equation $y = 2x + 5$, where y is the total cost in £ and x is the number of miles.

Another company charges $y = 3x$.

Plot both graphs for $x = 0$ to 8 using an appropriate set of values on the y -axis.

Use your graph to find the number of miles when the two companies cost the same.

8. A supermarket charges for delivery using the equation $y = 1.5x + 2$, where y is the total cost in £ and x is the number of items ordered.

Another supermarket charges $y = 2x$.

Plot both graphs for $x = 0$ to 8 using an appropriate set of values on the y -axis.

Use your graph to find the number of items at which both supermarkets cost the same.

96. Plotting Linear Graphs

Scenario Questions:

9. A rectangle has length x cm and width y cm.

The perimeter is 20 cm, so one equation is:
 $x + y = 10$

The difference between the length and the width is 2 cm, so another equation is: $x - y = 2$

Plot both graphs on the axis by identifying their points of intersection with the axis.

Use your graph to find the values of x and y .

10. A farmer buys cows (x) and sheep (y).

The total number of animals is 15, so one equation is:
 $x + y = 15$

The number of sheep is twice the number of cows, so another equation is: $y = 2x$

Plot both graphs on the axis by identifying their points of intersection with the axis.

Use your graph to find the number of cows and sheep.

ANSWERS

Verify Answers

Topic 96. Plotting Linear Graphs

Practice Questions:

