

Maths Workout - Algebra & Problem Solving

Topic 17 - Straight Lines 1				
Target 1	Target 2	Target 3	Target 4	Target 5
<i>Read and plot coordinates in all 4 quadrants</i>	<i>Plot coordinates in all 4 quadrants</i>	<i>Draw a straight line by calculating and plotting points</i>	<i>Calculate the gradient of a straight line between two points</i>	<i>Calculate the equation of a straight line by calculating the gradient and identifying the y-intercept</i> <i>Know $y=mx+c$</i>
1. Read coordinates in all 4 quadrants	1. Coordinates Puzzle: Plot the points and guess the shape	1. Draw a vertical or horizontal straight line given the equation	1. Demo: Calculate the gradient of a straight line between 2 points	1. Identify the equation of a vertical or horizontal straight line
2. Speed Response: Read coordinates in all 4 quadrants	2. Coordinates Puzzle: Plot the points and guess the shape	2. Demo: Draw a straight line by calculating 3 points	2. Calculate the gradient of a straight line between 2 given points	2. Demo: Calculate the equation of a straight line in the form $y = mx+c$
3. Plot coordinates in all 4 quadrants	3. Coordinates Puzzle: Plot the points and guess the shape	3. Draw a straight line by calculating and plotting points, e.g. $y = 2x-2$	3. Calculate the gradient of a straight line between 2 points on a grid	3. Identify the equation of a straight line given the gradient and y-intercept
4. Speed Response: Plot coordinates in all 4 quadrants	4. Coordinates Puzzle: Plot the points and guess the shape	4. Draw a straight line by calculating and plotting points, e.g. $y+3x = 2$	4. Demo: Summary of positive, negative, zero and undefined gradient	4. Calculate the equation of a straight line of the form $y = 3x$, $y= 2/3x$
5. Coordinates Puzzle: Plot the points and guess the shape	5. Coordinates Puzzle: Plot the points and guess the shape	5. Draw a straight line by calculating and plotting points, e.g. $2y-3x = 12$	5. Solve a problem involving gradients	5. Calculate the equation of a straight line of the form $y = 3x$, $y= 2/3x$
6. Coordinates Puzzle: Plot the points and guess the shape	6. Coordinates Puzzle: Plot the points and guess the shape		6. Solve a problem involving gradients	6. Calculate the equation of a straight line of the form $y = 3x+1$
7. Coordinates Puzzle: Plot the points and guess the shape	7. Coordinates Puzzle: Plot the points and guess the shape			7. Calculate the equation of a straight line of the form $y = 3x/2+1$
				8. Match a sketch of a graph with its equation
				9. Match a sketch of a graph with its equation
				10. Match a sketch of a graph with its equation
				11. Match a sketch of a graph with its equation