Discussion Problems
Step 1: Describe Position

National Curriculum Objectives:

Mathematics Year 4: (4P3a) Describe positions on a 2-D grid as coordinates in the first quadrant.

About this resource:

This resource has been designed for pupils who understand the concepts within this step. It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.
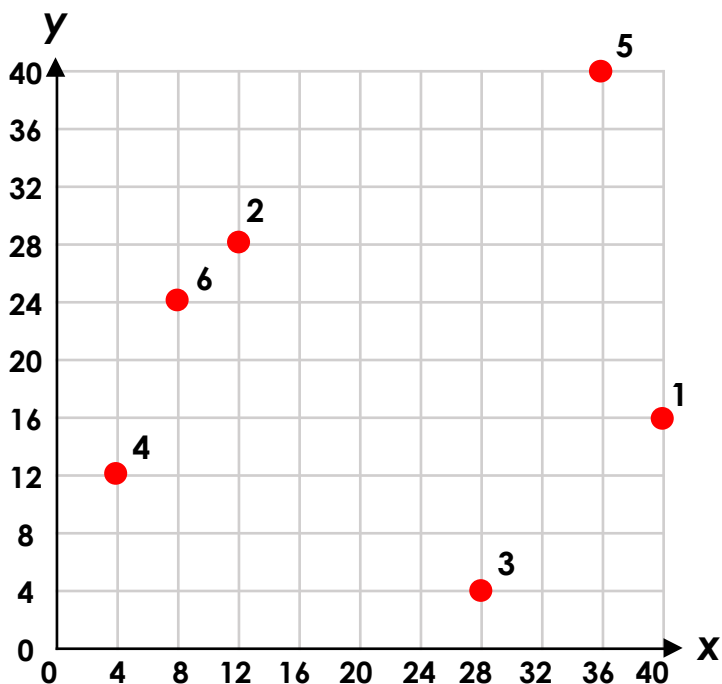
We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More Year 4 Position and Direction resources.

Did you like this resource? Don't forget to review it on our website.

Describe Position

1. Crack the code to find the mystery word.

A	(12, 28)	N	(32, 36)
B	(40, 16)	O	(16, 32)
C	(20, 20)	P	(20, 8)
D	(28, 4)	Q	(24, 36)
E	(36, 40)	R	(8, 24)
F	(28, 40)	S	(8, 8)
G	(4, 12)	T	(12, 12)
H	(4, 40)	U	(16, 36)
I	(4, 24)	V	(16, 4)
J	(36, 36)	W	(4, 8)
K	(32, 12)	X	(20, 24)
L	(4, 4)	Y	(40, 8)
M	(8, 12)	Z	(40, 40)

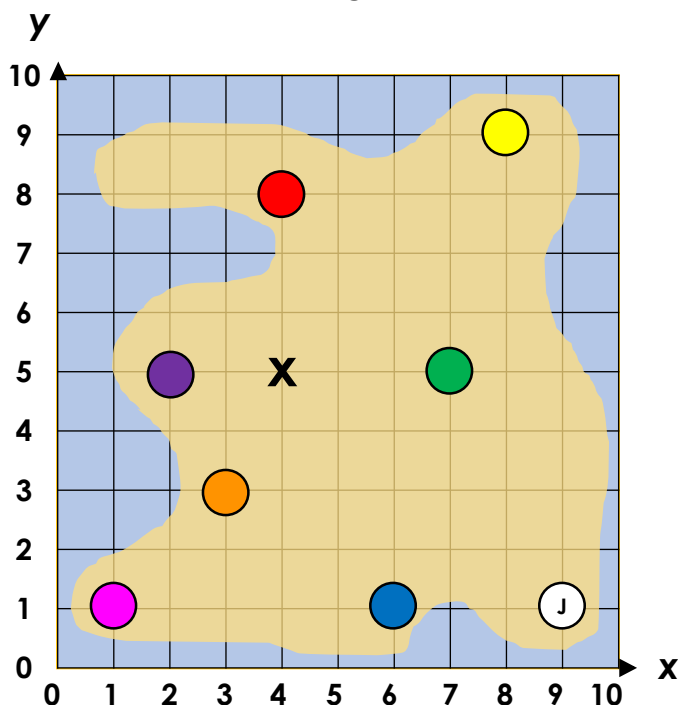| 1	2	3	4	5	6

Use the alphabet code to create your own six letter word to crack.

DP

2. Pirate Joe is going on a treasure hunt. He starts his journey at (9, 1). He must collect 4 different objects before collecting the treasure.

Explore the shortest route possible identifying the coordinates of each object you choose. What is the longest route?
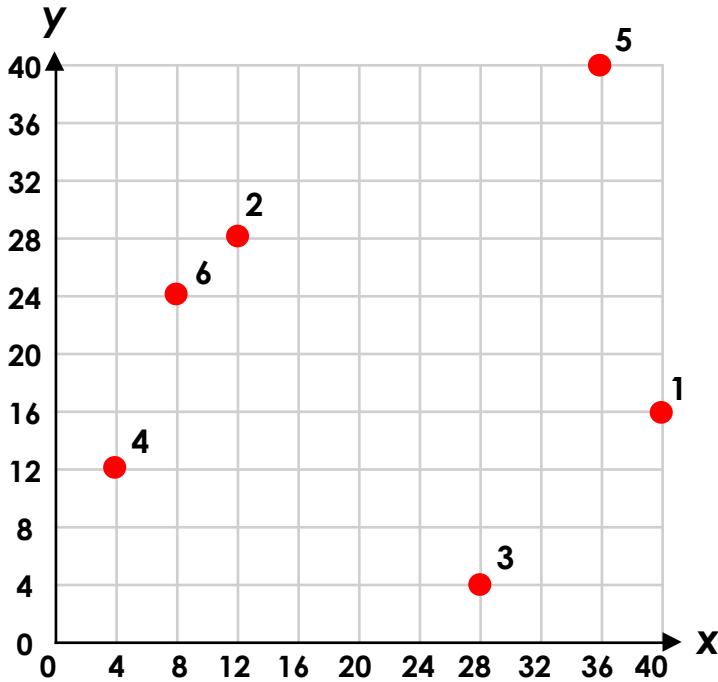

key	object
(green)	message in a bottle
(red)	cutlass
(orange)	compass
(blue)	parrot
(purple)	spade
(yellow)	telescope
(magenta)	map
X	treasure
J	Pirate Joe

DP

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Discussion Problems – Describe Position – Year 4

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Describe Position

1. Crack the code to find the mystery word.

A	(12, 28)		N	(32, 36)
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J	(36, 36)		W	(4, 8)
K	(32, 12)		X	(20, 24)
L	(4, 4)		Y	(40, 8)
M	(8, 12)		Z	(40, 40)

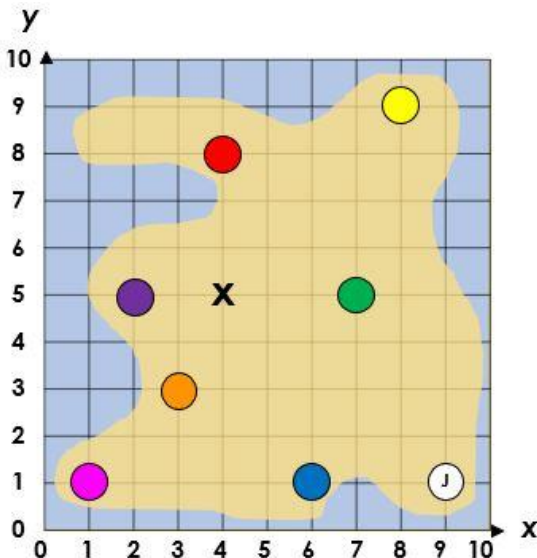| 1	2	3	4	5	6
B	A	D	G	E	R

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DP

2. Pirate Joe is going on a treasure hunt. He starts his journey at (9, 1). He must collect 4 different objects before collecting the treasure.

Explore the shortest route possible identifying the coordinates of each object you choose. What is the longest route?

**Shortest route – Various answers, for example: (9, 1), (6, 1), (1, 1), (3, 3), (2,5) and (4, 5).
Longest route – Various answers, for example: (9, 1), (8, 9), (1, 1), (4, 8), (6, 1) and (4, 5).**

key	object
● (green)	message in a bottle
● (red)	cutlass
● (orange)	compass
● (blue)	parrot
● (purple)	spade
● (yellow)	telescope
● (magenta)	map
X	treasure
J	Pirate Joe

DP

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Discussion Problems – Describe Position ANSWERS