



# Keep-uppI Maths Workout



Year 6 - Pack 2      **Answers**



KPIs for Term 1 (continued)

Multiply numbers up to 4 digits by a 2-digit number choosing efficient methods

Divide numbers up to 4 digits by a two-digit number choosing efficient methods and interpreting the remainders

Describe and plot positions on a 2-D grid as coordinates in the four quadrants

Reflect and translate shapes



# Multiplication Workout

Workout A

$600 \times 20 = 12,000$

$6,000 \times 50 = 300,000$

		3	5	1	
		×	1	7	
<hr/>					
		5	9	6	7

		2	3	5	8
		×	3	7	
<hr/>					
		8	7	2	4

$500 \times 30 = 15,000$

$5,000 \times 80 = 400,000$

		1	3	0	9
		×	2	3	
<hr/>					
		3	0	1	0

		4	1	6	7
		×	8	3	
<hr/>					
		3	4	5	8

$40 \times 8,000 = 320,000$

$15 \times 4,000 = 60,000$

Workout B

# Division Workout

$1,600 \div 20 = 80$

$1,320 \div 12 = 110$

			2	5	4
2	3	5	8	4	2
<hr/>					

			4	5	$\frac{1}{13}$
1	3	5	8	7	7
<hr/>					

$2,800 \div 40 = 70$

$1,080 \div 90 = 12$

Express remainders as a fraction where appropriate

			4	9	
8	7	4	2	6	3
<hr/>					

			5	4	$\frac{3}{96}$
9	6	5	1	8	7
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$4,500 \div 50 = 90$

$3,000 \div 15 = 200$

# Coordinates Workout

Workout C

Describe the points using coordinates:

$C(-2, -1)$

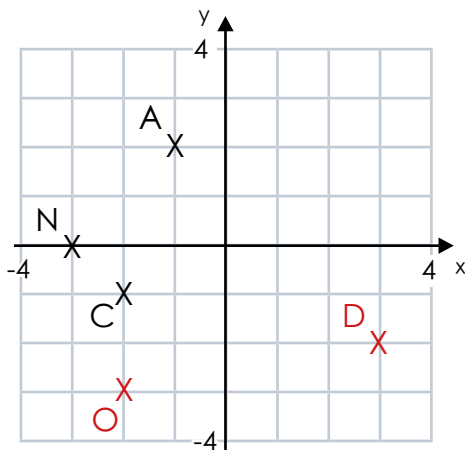
$A(-1, 2)$

$N(-3, 0)$

Plot the points:

$D(3, -2)$

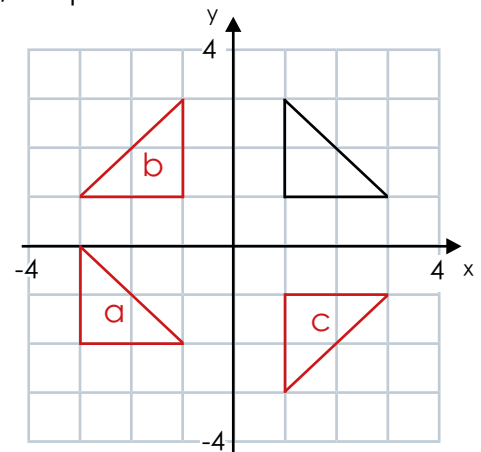
$O(-2, -3)$



a) Translate the triangle 4 squares left, 3 squares down

b) Reflect the triangle in the y-axis

c) Reflect the triangle in the x-axis





# Coordinates Game

Workout D

You need:

Two 1-6 dice.

A blank coordinate axis (see below).

To play:

Player 1 rolls the two dice to create a pair of co-ordinates.

For example, 2 and 4 could give the coordinates:

$(2,4)$   $(4,2)$   $(-2,4)$   $(2,-4)$   $(-4,2)$   $(4,-2)$   $(-2,-4)$

Player 1 plots the point of their chosen coordinates.

Player 2 rolls the dice to create a pair of coordinates.

Player 2 plots the point of their chosen coordinates.

To win:

The winner is the first player to plot 3 points in a straight line.

The line can be horizontal, vertical or diagonal.

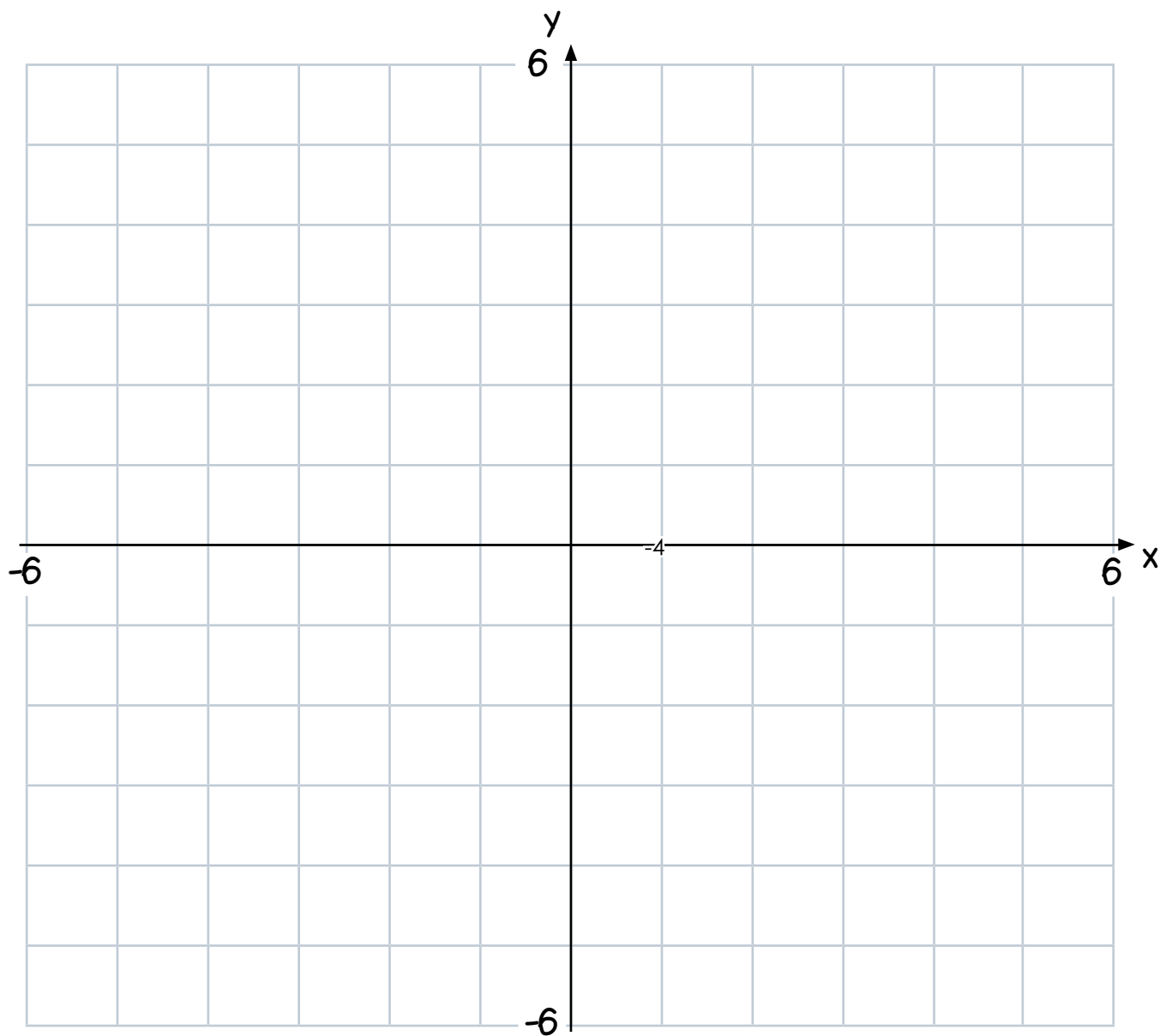
What do you notice about the coordinates that lie on a horizontal line?

What do you notice about the coordinates that lie on a vertical line?

What do you notice about the coordinates that lie on a diagonal line?



# Coordinate Axis





# Missing Number Workout

Workout E

Put different digits in the empty boxes so that the calculation has no remainder

Possible  
Solution

$$5 \quad \boxed{8} \quad \overline{) \quad 3 \quad \boxed{7} \quad 1 \quad \boxed{2}}$$

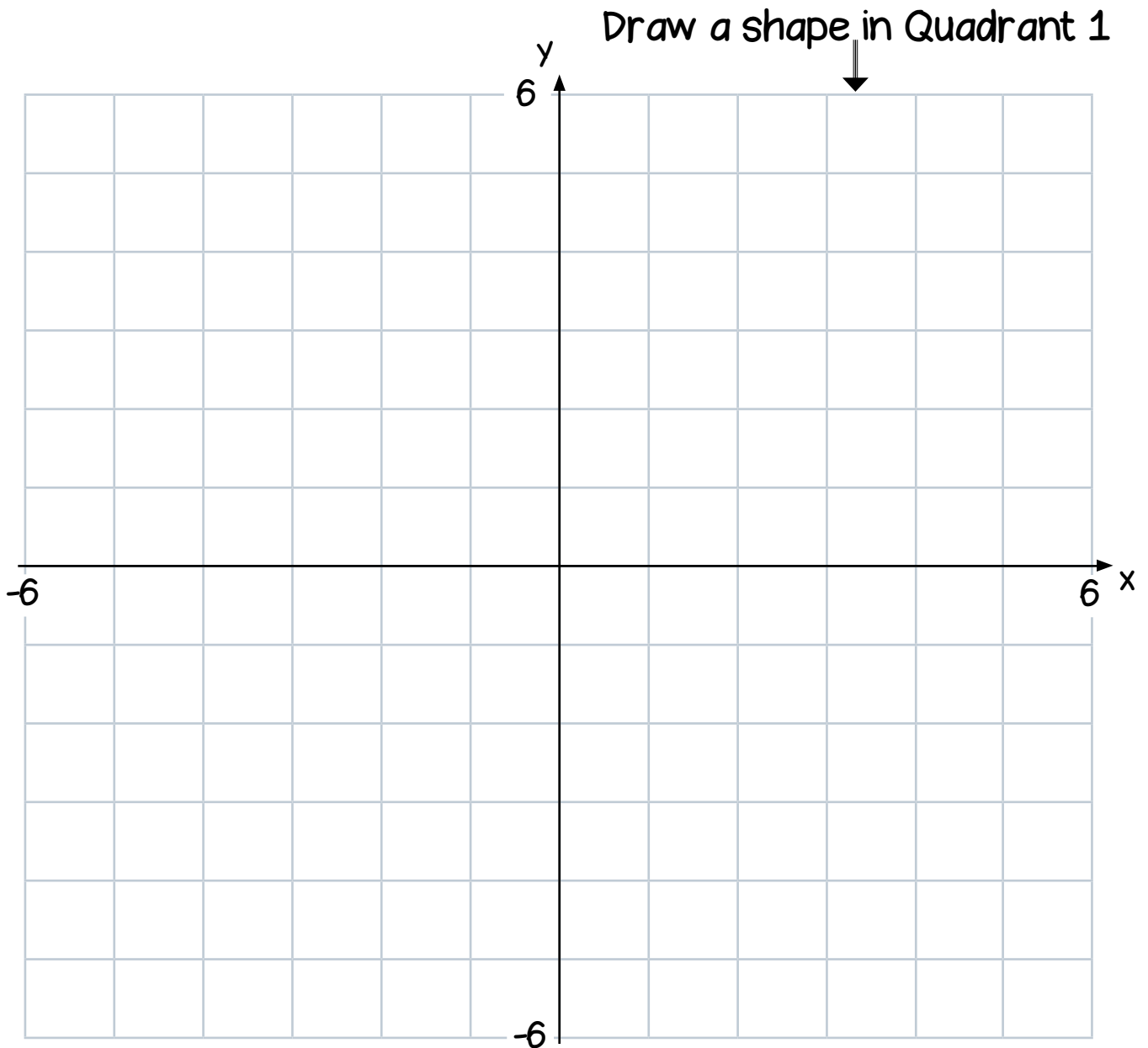
Put different digits in the empty boxes so that the calculation is greater than half a million.

$$\boxed{6} \quad 7 \quad \boxed{2} \quad 4 \quad \times \quad 8 \quad \boxed{3}$$

How close can you get to half a million?



# Investigating Translations and Reflections



- 1) Translate the shape 2 squares down.
- 2) Translate the shape 2 squares to the left.
- 3) Reflect all 3 shapes in the  $y$ -axis.
- 4) Reflect all shapes in the  $x$ -axis.

Colour in your shape symmetrically.



## Word Problem Workout

Workout G

1. Coco types at 47 words per minute.  
The document has 2,538 words.  
Will Colin finish typing the document in one hour?  
Yes. It will take 54 minutes
2. Colin is making necklaces.  
Each necklace used 38 beads.  
Colin has 1,640 beads.  
How many necklaces can he make?  
43
3. Coco is feeding her chickens.  
Each chicken eats 25g of seed.  
She has ten 500g bags of seed.  
How many chickens can she feed?  
200
4. Colin is sharing £3840 equally between his friends.  
Each person receives £240.  
How many friends does he have?  
16
5. Coco runs 465km during the month of March.  
She runs the same amount each day.  
How far does she run each day?  
15km
6. Colin is saving to buy a car.  
It costs £8,400  
He can pay for the car in 24 installments.  
How much does he pay in each installment?  
£350

Create your own word problems involving the multiplication and division of 4 and 2-digit numbers.



## Matching Workout

Match the calculations with the correct answer.  
Fill in the missing buddies.

$3,000 \times 70$		70,000
$3,500 \times 20$		360,000
$80 \times 5,000$		210,000
$700 \times 30$		36,000
$1,600 \times 25$		21,000
$2,400 \times 15$		400,000
$9,000 \times 40$		40,000

Match the calculations with the correct answer.  
Fill in the missing buddies.

$3,072 \div 48$		60
$3,888 \div 54$		62
$4,356 \div 66$		64
$6,300 \div 90$		66
$5,208 \div 84$		68
$3,600 \div 60$		70
$5,848 \div 86$		72

Create your own Matching Workouts