

A Circle the multiples of the number given.

1) Multiples of 6

54	25	18	42	72	33
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2) Multiples of 9

57	72	27	38	81	90
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3) Multiples of 8

48	16	38	63	96	64
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4) Multiples of 12

78	24	84	36	60	54
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5) Multiples of 4

8	34	20	44	18	24
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Circle the odd one out. Explain your answer.

B

10	45	20	34	25
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34 is the odd one out because it is not a multiple of 5.

C

64	24	12	48	32
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12 is the odd one out because the other numbers are all multiples of 4 and 8. 12 is only a multiple of 4.







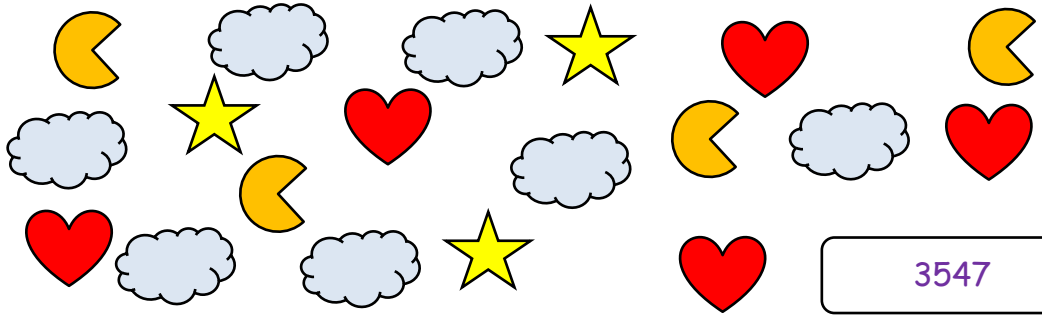
To help you keep your times tables sharp, remember to regularly practise on Times Tables Rock Stars. Look out for battles and help your team win!

A Complete this table, using your knowledge of partitioning.

Number	Words	Expanded form	Picture
1523	1 thousands 5 hundreds 2 tens 3 ones	$1000 + 500 + 20 + 3$ $= \underline{1523}$	
4241	4 thousands 2 hundreds 6 tens 1 ones	$4000 + 200 + 60 + 1$ $= \underline{4241}$	
3782	<u>3</u> thousands <u>7</u> hundreds <u>8</u> tens <u>2</u> ones	$3000 + 700 + 80 + 2$ $= \underline{3782}$	
2492	<u>2</u> thousands <u>4</u> hundreds <u>9</u> tens <u>2</u> ones	$2000 + 400 + 90 + 2$ $= \underline{2492}$	
6028	<u>6</u> thousands <u>0</u> hundreds <u>2</u> tens <u>8</u> ones	$6000 + 0 + 20 + 8 =$ $\underline{6028}$	
5377	<u>5</u> thousands <u>3</u> hundreds <u>7</u> tens <u>7</u> ones	$5000 + 300 + 70 + 7$ $= \underline{5377}$	
2090	2 thousands 0 hundreds 9 tens 0 ones	$2000 + 0 + 90 + 0 =$ $\underline{2090}$	

B Use the key to find the number show here.

	1000
	100
	10
	1

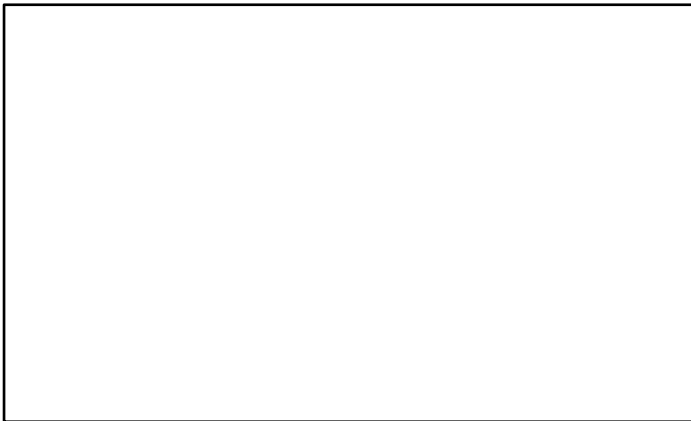


3547

C Create your own key, using a shape for each number. Draw your own numbers, using it.

	thousand (1000)
	ten (10)

	hundred (100)
	one (1)



There are _____ thousands,
 _____ hundreds, _____ tens
 and _____ ones.
 The number shown is _____.
 _____ + _____ + _____ + _____



There are _____ thousands,
 _____ hundreds, _____ tens
 and _____ ones.
 The number shown is _____.
 _____ + _____ + _____ + _____



There are _____ thousands,
 _____ hundreds, _____ tens
 and _____ ones.
 The number shown is _____.
 _____ + _____ + _____ + _____

Place Value:

Website to support your learning:

<https://www.bbc.co.uk/bitesize/topics/zsjqtfr/articles/z9w3g82>

<https://www.topmarks.co.uk/learning-to-count/place-value-basketball>

Websites to extend your learning:

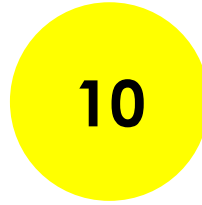
<https://www.bbc.co.uk/games/embed/guardians-mathematica>

Complete this table, using your knowledge of partitioning.

How many ways?

You have a pile of 100 coins and a pile of 10 coins.

Make 230



A

I can find a way

B

I can find different ways

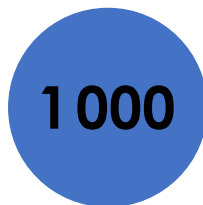
C

I know how many ways there are

How many ways?

You have a pile of 1000 coins and a pile of 100 coins.

Make 4100



A

I can find a way

B

I can find different ways

C

I know how many ways there are

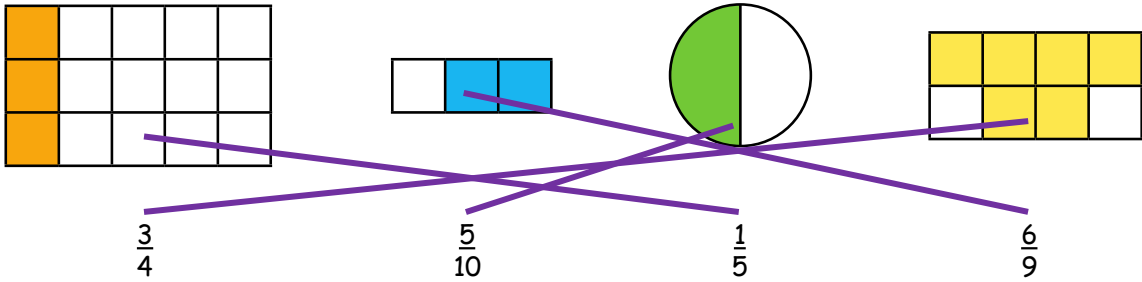
There are lots of different answers to these problems. As long as the coins add up to the correct total, it will be correct.

Example answers:

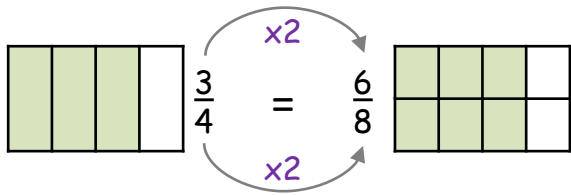
230: $100 + 100 + 10 + 10 + 10$; $100 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10$, etc.

4100: $1000 + 1000 + 1000 + 1000 + 100$; $1000 + 1000 + 1000 + 100 + 100 + 100 + 100 + 100 + 100 + 100 + 100 + 100 + 100$; etc.

Match the equivalent fractions.



Use this method to find equivalent fractions.



- multiply the numerators (top numbers) and the denominators (bottom numbers) by the same number

What you do to the top, you do to the bottom!

Websites to support your learning:

<https://www.youtube.com/watch?v=qcHHhd6HizI>
<https://www.youtube.com/watch?v=TLGw53eDTe0>

A

Complete these statements so they are correct using the method above.

$$\frac{1}{5} = \frac{2}{10}$$

$$\frac{1}{5} = \frac{4}{20}$$

$$\frac{1}{5} = \frac{8}{40}$$

$$\frac{2}{5} = \frac{4}{10}$$

$$\frac{4}{10} = \frac{8}{20}$$

$$\frac{16}{40} = \frac{4}{10}$$

B

Find a path through the maze using your knowledge of equivalent fractions. Start with $\frac{1}{3}$. You can move up, down, left, right and diagonally.

Start	$\frac{1}{3}$	$\frac{8}{15}$	$\frac{3}{57}$	$\frac{3}{7}$	$\frac{12}{16}$	$\frac{5}{9}$
$\frac{10}{20}$	$\frac{2}{4}$	$\frac{2}{6}$	$\frac{6}{18}$	$\frac{12}{36}$	$\frac{24}{72}$	$\frac{4}{5}$
$\frac{7}{8}$	$\frac{11}{28}$	$\frac{1}{9}$	$\frac{3}{10}$	$\frac{10}{100}$	$\frac{46}{126}$	$\frac{48}{144}$
$\frac{50}{100}$	$\frac{13}{20}$	$\frac{6}{12}$	$\frac{1}{8}$	$\frac{3}{5}$	$\frac{96}{157}$	Finish

B Look at these fractions. Which is the odd one out? Explain your answer.

A $\frac{1}{4}$ B $\frac{4}{8}$ C $\frac{5}{20}$ D $\frac{3}{12}$

B is the odd one out because it is equivalent to $\frac{1}{2}$. A, C and D are all equivalent to $\frac{1}{4}$.

C Explore these equivalent fraction number sequences. Predict what comes next and explain the pattern.

a) $\frac{1}{4} = \frac{2}{8} = \frac{4}{16} = \boxed{\frac{8}{32}}$

The numerator and denominator are being multiplied by 2 each time.

b) $\frac{1}{5} = \frac{10}{50} = \frac{100}{500} = \boxed{\frac{1000}{5000}}$

The numerator and denominator are being multiplied by 10 each time.

c) $\frac{1}{2} = \frac{2}{4} = \frac{6}{12} = \frac{24}{48} = \boxed{\frac{120}{240}}$

The numerator and denominator are being multiplied by 1 more each time e.g. x2, x3, x4. To find the next fraction, you need to multiply top and bottom by 5.

d) Create your own equivalent fraction number sequence. Explain the pattern you have used.

Various answers are possible. Check that the sequence of fractions is all equivalent.

Websites to extend your learning:

<http://www.scottle.edu.au/ec/viewing/L155/L155/index.html#>

<https://www.topmarks.co.uk/Flash.aspx?a=activity06>

Websites to support your learning:

<https://www.bbc.co.uk/bitesize/topics/zhdwxnb/articles/z9n4k7h>

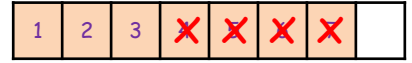
When adding, the denominator stays the same. Just add the numerators.

$$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$$



When adding, the denominator stays the same. Just add the numerators.

$$\frac{7}{8} - \frac{4}{8} = \frac{3}{8}$$



A Find the answers to these calculations.

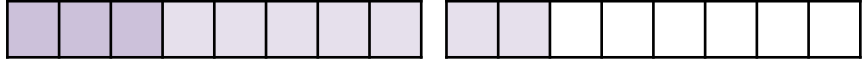
$$\frac{3}{6} + \frac{1}{6} = \frac{4}{6}$$



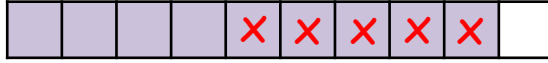
$$\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$$



$$\frac{3}{8} + \frac{7}{8} = \frac{10}{8}$$



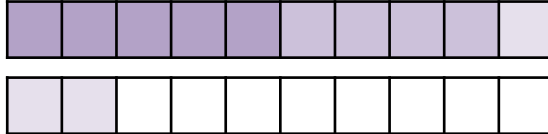
$$\frac{9}{10} - \frac{5}{10} = \frac{4}{10}$$



$$\frac{3}{12} + \frac{6}{12} + \frac{2}{12} = \frac{11}{12}$$



$$\frac{5}{10} + \frac{4}{10} + \frac{3}{10} = \frac{12}{10}$$



$$\frac{3}{5} + \frac{4}{5} = \frac{7}{5}$$

$$\frac{5}{4} + \frac{2}{4} + \frac{7}{4} = \frac{14}{4}$$

$$\frac{7}{11} - \frac{3}{11} = \frac{4}{11}$$

$$\frac{15}{10} - \frac{3}{10} - \frac{4}{10} = \frac{8}{10}$$

B Complete these calculations so they are correct.

$$\frac{3}{12} + \frac{6}{12} = \frac{9}{12}$$

$$\frac{3}{13} + \frac{4}{13} = \frac{7}{13}$$

$$\frac{11}{11} - \frac{6}{11} = \frac{5}{11}$$

$$\frac{13}{10} - \frac{9}{10} = \frac{4}{10}$$

or 1 (a whole)

C

Complete these calculations so they are correct.

Various answers possible, as long as the denominators stay the same. These are example answers.

$$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$$

$$\frac{4}{9} + \frac{4}{9} = \frac{8}{9}$$

$$\frac{12}{14} - \frac{8}{14} = \frac{4}{14}$$

$$\frac{9}{16} - \frac{1}{16} = \frac{8}{16}$$

$$\frac{5}{6} + \frac{8}{6} = \frac{13}{6}$$

$$1 + \frac{4}{5} = 1\frac{4}{5}$$

$$\frac{11}{17} - \frac{5}{17} = \frac{6}{17}$$

$$3\frac{2}{3} - 1\frac{1}{3} = 2\frac{1}{3}$$

$$\frac{5}{15} + \frac{5}{15} + \frac{4}{15} = \frac{14}{15}$$

$$1 - \frac{6}{12} - \frac{4}{12} = \frac{2}{12}$$

Websites to extend your learning:

<http://www.sheppardsoftware.com/mathgames/fractions/FruitShootFractionsAddition.htm>

https://www.abcya.com/games/adding_fractions