Lesson 36 LO: To find ¾ of an amount (continued)

Numerator
(number on the top)

$$\frac{3}{4}$$

Denominator
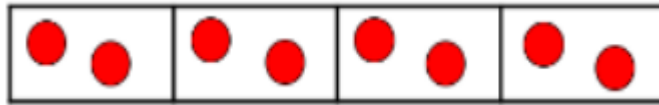(number on the bottom)

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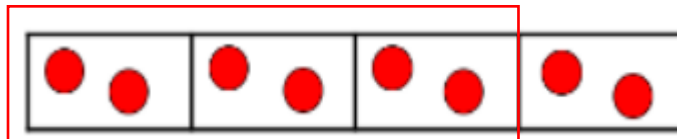Create, discover and succeed together

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1. Divide the amount into 4 equal groups.
2. To find three quarters, count how many altogether in 3 of the groups.

Model:

Jumanji shares 8 smarties into 4 equal groups (quarters).

To **find three quarters** of the amount of smarties, Jumanji **counts how many in three of the groups**.

¾ of 8 smarties **is 6** smarties.

Now you try:

Use toys or objects to divide into 4 equal groups to help you fill in the blanks:

$\frac{1}{4}$ of 24 = ☐

$\frac{2}{4}$ of 24 = ☐

$\frac{3}{4}$ of 24 = ☐

$\frac{4}{4}$ of 24 = ☐

5 Year 2 are planting sunflower seeds.

Annie has 4 pots and 12 seeds.

She plants the same number of seeds in each pot.
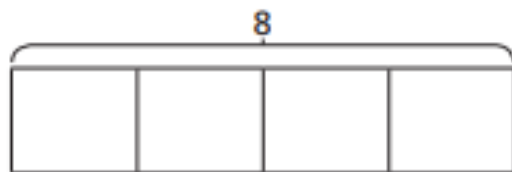
a) Draw the seeds she puts in each pot.

b) Complete the number sentences.

$\frac{1}{4}$ of 12 = ☐ $\frac{3}{4}$ of 12 = ☐
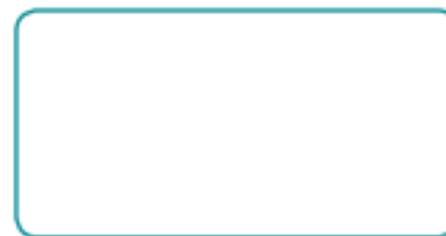
6 The bar model is split into 4 equal parts.

a) What is the value of each part?
   Label it on the bar model.

8

b) Use the bar model to find $\frac{3}{4}$ of 8   ☐

7 Draw a bar model to find $\frac{3}{4}$ of 40

$\frac{3}{4}$ of 40 = ☐

8 Write <, > or = to compare the statements.

a) $\frac{1}{4}$ of 4 ◯ $\frac{3}{4}$ of 4

b) $\frac{1}{2}$ of 20 ◯ $\frac{3}{4}$ of 20

9 Scott has some seeds.

He puts $\frac{3}{4}$ of the seeds into his hand.
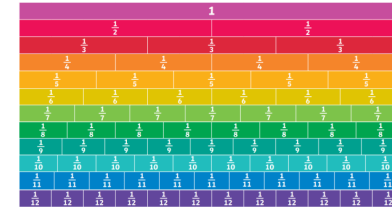
He puts the rest of the seeds on the table.

How many seeds does Scott have in his hand?

Use a bar model to help you.   ☐

LO: To find equivalent fractions(continued)

Success Criteria:

Use the fraction wall on the last page to help with comparing fractions to find equivalents

| 1. Draw two equal lengthed bars on top of each other. |
| 2. Divide each bar into EQUAL parts according to what the denominator is in each fraction |
| 3. Colour the parts according to what the numerator is in each fraction |
| 4. If the coloured parts are inline with each other, the fractions are equivalent. |

RECAP!

EQUIVALENT means EQUAL or THE SAME AS.

A number line divided into twelfths can also show halves, thirds, quarters and sixths.

Model:
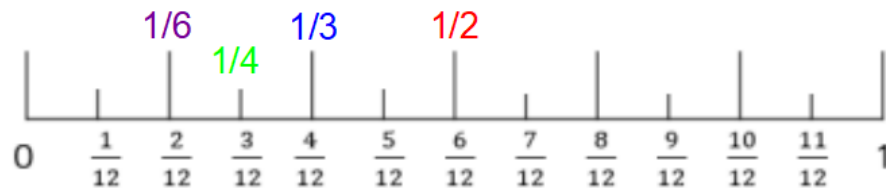
Split the number line equally into 3 parts to find thirds.

Split the number line equally into 4 parts to find quarters.

Split the number line equally into 6 parts to find sixths.
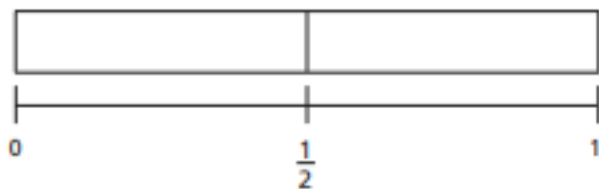
Now you try:

Mark on these fractions which are equivalent to twelfths: $\frac{3}{4}$ $\frac{2}{6}$ $\frac{2}{3}$

Then write the number sentence to show the equivalents for these fractions e.g. $\frac{1}{3} = \frac{4}{12}$

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Equivalent fractions (2)

1 Shade the bar models to represent the fractions.

a) Shade $\frac{1}{2}$ of the bar model.

0       $\frac{1}{2}$ 1

b) Shade $\frac{2}{4}$ of the bar model.

0       $\frac{1}{2}$ 1
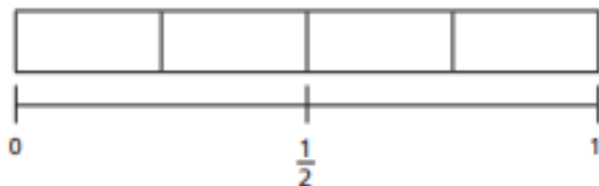
c) Shade $\frac{3}{6}$ of the bar model.

0       $\frac{1}{2}$ 1
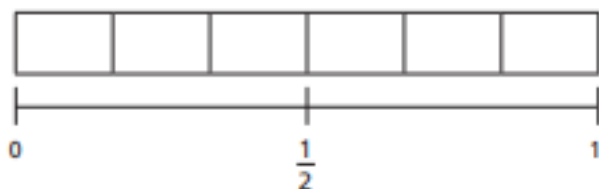
d) What do you notice?

e) Write another fraction that is equivalent to $\frac{1}{2}$

2 Shade $\frac{2}{3}$ of each bar model.

a)

0       $\frac{1}{3}$ $\frac{2}{3}$ 1

b)

0       $\frac{1}{3}$ $\frac{2}{3}$ 1

c)

0       $\frac{1}{3}$ $\frac{2}{3}$ 1
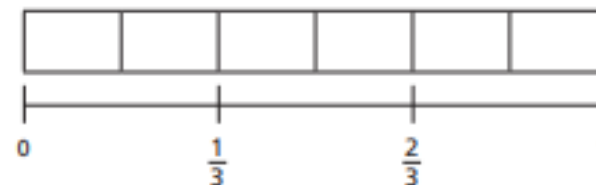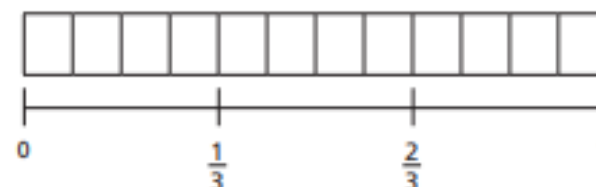
d) Use your answers to parts a), b) and c) to complete the equivalent fractions.

$$\frac{2}{3} = \frac{\square}{6} = \frac{8}{\square} = \frac{\square}{15}$$

3 Mo is finding equivalent fractions.

Number line 1: 0, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{4}{5}$, 1

Number line 2: 0, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{4}{5}$, 1
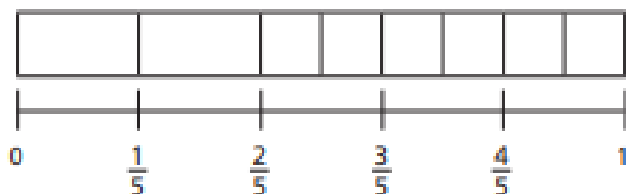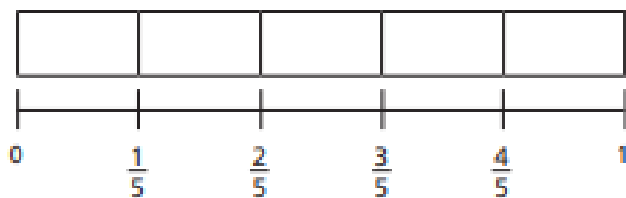
Mo: $\frac{6}{8}$ is equivalent to $\frac{4}{5}$

Do you agree with Mo? _____

Explain your answer.

4 Find the missing numbers.

a)
Top line: 0, $\frac{2}{14}$, $\frac{4}{14}$, $\frac{\square}{14}$, $\frac{8}{14}$, $\square$, $\square$, $\frac{14}{14}$
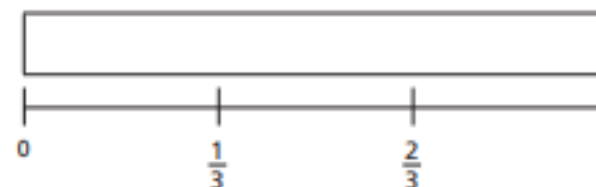
Bottom line: 0, $\frac{1}{7}$, $\square$, $\frac{3}{7}$, $\frac{4}{7}$, $\square$, $\square$, $\square$

b)
Top line: 0, $\frac{\square}{15}$, $\frac{9}{15}$, $\frac{\square}{15}$, $\square$

Bottom line: 0, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{4}{5}$, $\frac{5}{5}$, $\frac{6}{5}$

5 Here is a number line.

Number line with triangle and square markers: 0 1
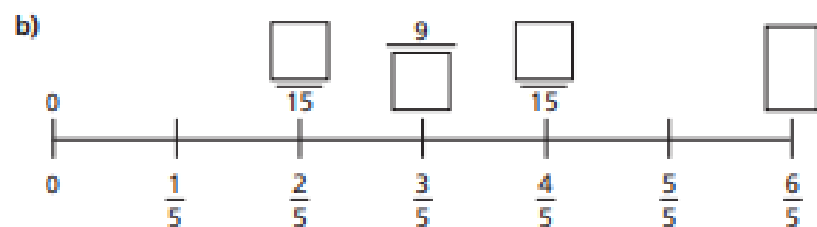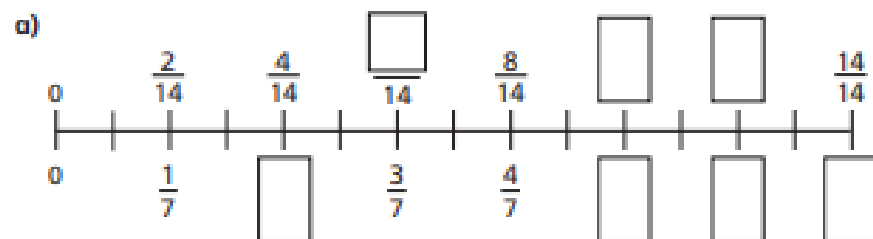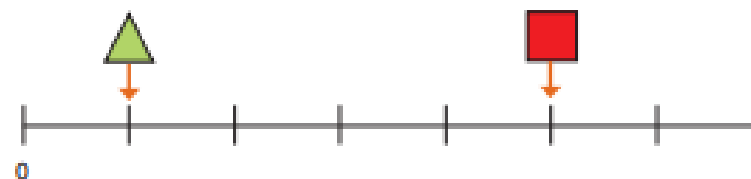
a) What fraction is each shape pointing to?

△ = $\square$ ■ = $\square$

b) A circle is halfway between the triangle and the square.

Draw the circle on the number line.

c)
Eva: The circle is pointing to $\frac{9}{21}$

Do you agree with Eva? _____

Show how you worked this out.

d) Write three equivalent fractions for each shape.

△ $\square$ $\square$ $\square$ ● $\square$ $\square$ $\square$

■ $\square$ $\square$ $\square$

Compare answers with a partner.

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Use this fraction wall to help when comparing fractions to find equivalents:

1											
$\frac{1}{2}$						$\frac{1}{2}$					
$\frac{1}{3}$				$\frac{1}{3}$				$\frac{1}{3}$			
$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$		
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$			$\frac{1}{5}$			$\frac{1}{5}$	
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{7}$	$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$	$\frac{1}{8}$		$\frac{1}{8}$
$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$	$\frac{1}{9}$	$\frac{1}{9}$		$\frac{1}{9}$
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$		$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$		$\frac{1}{10}$
$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$	$\frac{1}{11}$		$\frac{1}{11}$
$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$