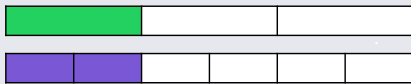To be able to find fractions equivalent to a unit fraction

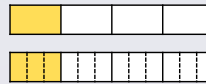**Starter:**

Express the bar models below as fractions.

What's the same and different about the bar models and their fraction form? Explain your answer.

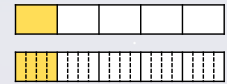To be able to find fractions equivalent to a unit fraction

Activity 1:

Use the bar models to help you complete the number sentences below them.

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

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

To be able to find fractions equivalent to a unit fraction

Activity 2:

Use the bar models to help you complete the number sentences below them.
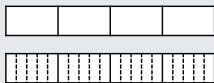
$$\frac{1}{4} =$$

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

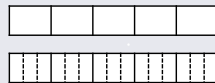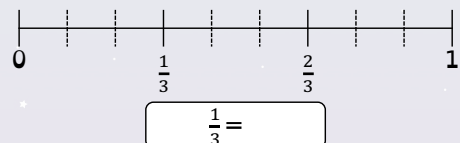To be able to find fractions equivalent to a unit fraction

Activity 3:

Use the number line to help you complete the number sentence below.

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

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

To be able to find fractions equivalent to a unit fraction

Activity 4:

Chen says, "To find equivalent fractions to a unit fraction, I multiply the numerator and denominator by the same number."

Use Chen's method to solve the following number sentences:

$$\overset{\times\,9}{\underset{\times\,9}{\frac{1}{3} =}}$$

$$\overset{\times\,6}{\underset{\times\,6}{\frac{1}{8} =}}$$

To be able to find fractions equivalent to a unit fraction

Activity 5:

Ruth says, "To find equivalent fractions to a unit fraction, I look at the relationship between the numerator and denominator."

Use Ruth's method to solve the following number sentences:

$$\overset{\times\,4}{\underset{\times\,4}{\frac{1}{4} = \frac{6}{}}}$$

$$\overset{\div\,4}{\underset{\div\,4}{\frac{1}{4} = \frac{}{28}}}$$

Slide 1

To be able to find fractions equivalent to a unit fraction — MathShed

Activity 6:

Use your preferred method to solve the following:

a) $\dfrac{1}{4} = \dfrac{}{28}$

b) $\dfrac{1}{6} = \dfrac{}{36}$

c) $\dfrac{1}{7} = \dfrac{6}{}$

d) $\dfrac{1}{8} = \dfrac{7}{}$

e) $\dfrac{1}{7} = \dfrac{}{49}$

f) $\dfrac{1}{} = \dfrac{8}{24}$

g) $\dfrac{1}{4} = \dfrac{12}{}$

h) $\dfrac{1}{11} = \dfrac{}{121}$

i) $\dfrac{1}{} = \dfrac{25}{100}$

Slide 2

To be able to find fractions equivalent to a unit fraction — MathShed

Activity 7:

How many fractions can you think of that are equivalent to $\dfrac{1}{5}$?

Slide 3

To be able to find fractions equivalent to a unit fraction — MathShed

Activity 8:

Use your knowledge of equivalent fractions to a unit fraction to decide which number each of the animals represent. Pick from the number cards below.

$\dfrac{1}{2} = \dfrac{\text{🐑🐄}}{} = \dfrac{\text{🐕🐈}}{} = \dfrac{\text{🦆🐴}}{}$

🐑 + 🐱 = 6

🐑 = 🐱

🦆 is double 🐱

| 2 | 4 | 8 | 16 |

Slide 4

To be able to find fractions equivalent to unit fractions — MathShed

Evaluation:

I have found the following equivalent fractions:

$\dfrac{1}{5} = \dfrac{3}{7}$

Do you agree with Astrobee?
Explain your answer.