

Week 9

This week in a nutshell:

We now begin to practice key concepts relating to fractions. These skills will become increasingly important this year so it is important to discuss and address difficulties and misconceptions as they arise. Developing a critical understanding of fractions now is easier than unlearning misconceptions at a later date. Fractions are viewed in various ways over the coming slides to enable students to explore the different methods involved.

Question 1: Writing decimals as fractions

Question 2: Mixed numbers & improper fractions

Question 3: Powers and roots

Question 4: Equivalent fractions

Question 5: Fractions of shapes

This week's ideas for class discussion include:

Question 1: **Writing decimals as fractions**

- Why is changing from decimals to fractions important?

Question 2: **Mixed numbers & improper fractions**

- How do we check that the mixed number and improper fraction have the same value?
- Is one form "better" than the other?

Question 3: **Powers and roots**

- Have you learned any efficient methods for working with powers and roots?

Question 4: **Equivalent fractions**

- What does equivalent actually mean?
- How do we guarantee equivalence?

Question 5: **Fractions of shapes**

- How can diagrams help us with fractions?

Week 9: Day 1

1) What is 0.5 expressed as a fraction?

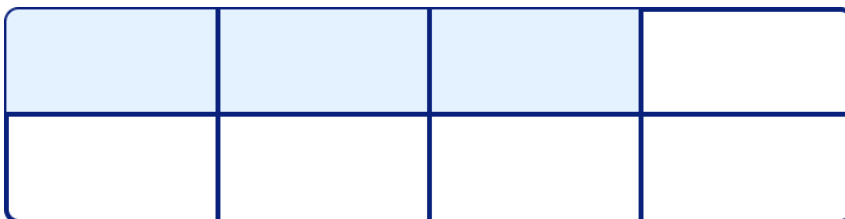
2) Write $\frac{3}{2}$ as a mixed fraction

3) What is 2^4 ?

4) Fill in the boxes to make these fractions equivalent

$$\frac{1}{2} = \frac{3}{\boxed{}} = \frac{\boxed{}}{10} = \frac{10}{\boxed{}}$$

5) What fraction of this rectangle is blue?



Week 9: Day 1 Answers

1) What is 0.5 expressed as a fraction? $\frac{1}{2}$

2) Write $\frac{3}{2}$ as a mixed fraction $1\frac{1}{2}$

3) What is 2^4 ?
16

4) Fill in the boxes to make these fractions equivalent

$$\frac{1}{2} = \frac{3}{\boxed{6}} = \frac{\boxed{5}}{10} = \frac{10}{\boxed{20}}$$

5) What fraction of this rectangle is blue? $\frac{3}{8}$

Week 9: Day 2

1) What is 0.25 expressed as a fraction?

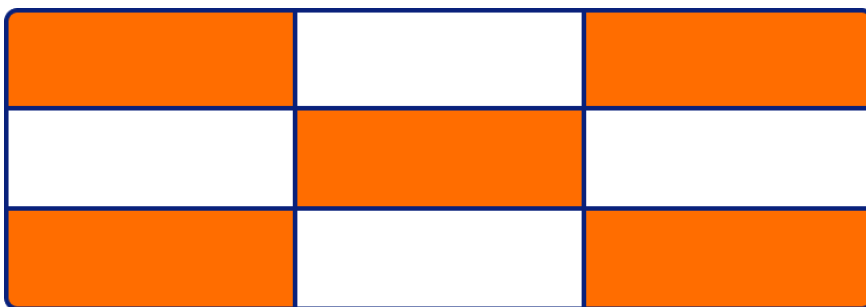
2) Write $\frac{7}{4}$ as a mixed number.

3) What is $\sqrt{81}$?

4) Fill in the boxes to make these fractions equivalent.

$$\frac{1}{3} = \frac{3}{\boxed{}} = \frac{\boxed{}}{12} = \frac{15}{\boxed{}}$$

5) What fraction of this rectangle is orange?



Week 9: Day 2 Answers

1) What is 0.25 expressed as a fraction? $\frac{1}{4}$

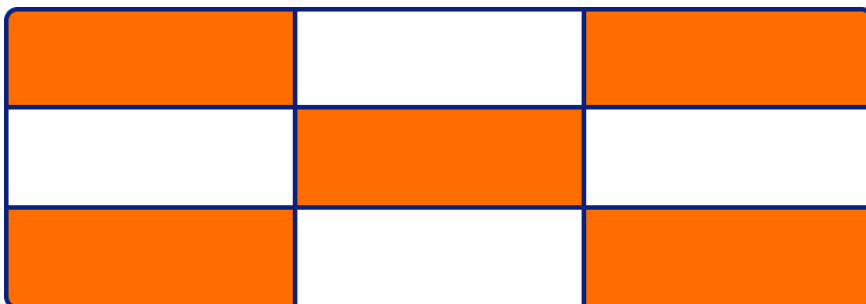
2) Write $\frac{7}{4}$ as a mixed number. $1\frac{3}{4}$

3) What is $\sqrt{81}$?
9

4) Fill in the boxes to make these fractions equivalent.

$$\frac{1}{3} = \frac{3}{\boxed{9}} = \frac{\boxed{4}}{12} = \frac{15}{\boxed{45}}$$

5) What fraction of this rectangle is orange? $\frac{5}{9}$



Week 9: Day 3

1) What is 0.7 expressed as a fraction?

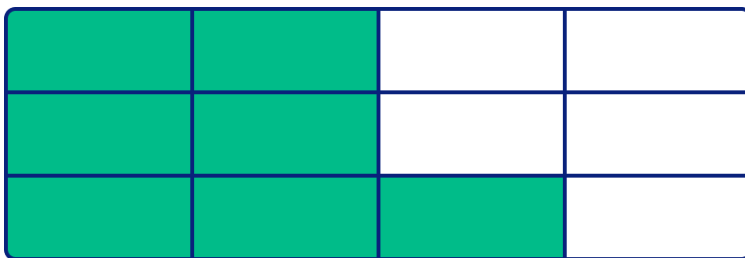
2) Write $3\frac{3}{4}$ as an improper fraction.

3) What is 4^4 ?

4) Fill in the boxes to make these fractions equivalent.

$$\frac{2}{5} = \frac{\boxed{}}{15} = \frac{\boxed{}}{50} = \frac{50}{\boxed{}}$$

5) What fraction of this rectangle is green?
Can this fraction be simplified?



Week 9: Day 3 Answers

1) What is 0.7 expressed as a fraction? $\frac{7}{10}$

2) Write $3\frac{3}{4}$ as an improper fraction. $\frac{15}{4}$

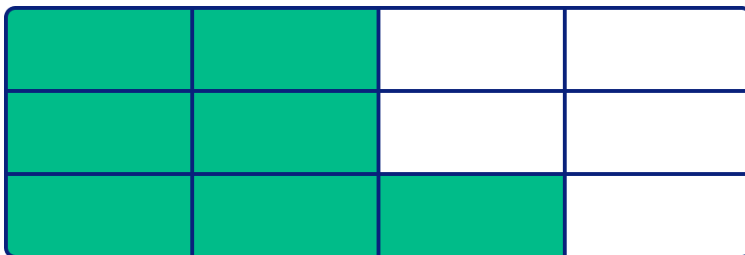
3) What is 4^4 ? 256

4) Fill in the boxes to make these fractions equivalent.

$$\frac{2}{5} = \frac{\boxed{6}}{15} = \frac{\boxed{20}}{50} = \frac{50}{\boxed{125}}$$

5) What fraction of this rectangle is green? $\frac{7}{12}$

Can this fraction be simplified? No, as 7 and 12 are coprime



Week 9: Day 4

1) What is 0.12 expressed as a fraction?

2) Write $\frac{15}{7}$ as a mixed number.

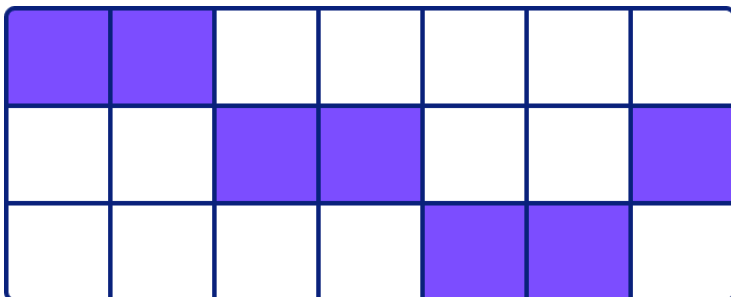
3) What is $\sqrt[3]{1000}$?

4) Fill in the boxes to make these fractions equivalent.

$$\frac{5}{8} = \frac{15}{\boxed{}} = \frac{\boxed{}}{80} = \frac{40}{\boxed{}}$$

5) What fraction of this rectangle is purple?

What is this fraction in its simplest form?



Week 9: Day 4 Answers

1) What is 0.12 expressed as a fraction? $\frac{12}{100}$ or $\frac{3}{25}$

2) Write $\frac{15}{7}$ as a mixed number. $2\frac{1}{7}$

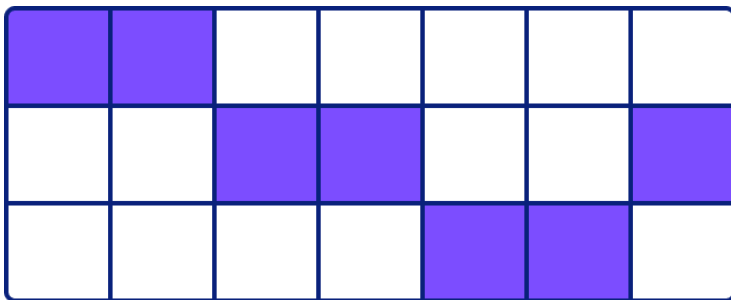
3) What is $\sqrt[3]{1000}$?
10

4) Fill in the boxes to make these fractions equivalent.

$$\frac{5}{8} = \frac{15}{\boxed{24}} = \frac{\boxed{50}}{80} = \frac{40}{\boxed{64}}$$

5) What fraction of this rectangle is purple? $\frac{7}{21}$

What is this fraction in its simplest form? $\frac{1}{3}$



Week 9: Day 5

1) What is $0.\dot{3}$ expressed as a fraction?

2) Write $2\frac{4}{5}$ as an improper fraction.

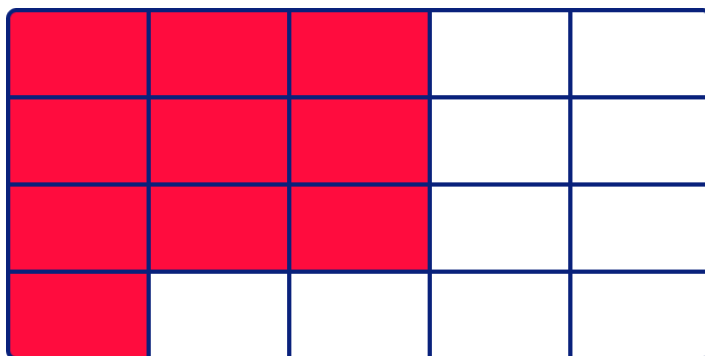
3) What is 5^3 ?

4) Fill in the boxes to make these fractions equivalent.

$$\frac{3}{7} = \frac{9}{\boxed{}} = \frac{\boxed{}}{28} = \frac{30}{\boxed{}}$$

5) What fraction of this rectangle is red?

What is this fraction in its simplest form?



Week 9: Day 5 Answers

1) What is $0.\dot{3}$ expressed as a fraction? $\frac{1}{3}$

2) Write $2\frac{4}{5}$ as an improper fraction. $\frac{14}{5}$

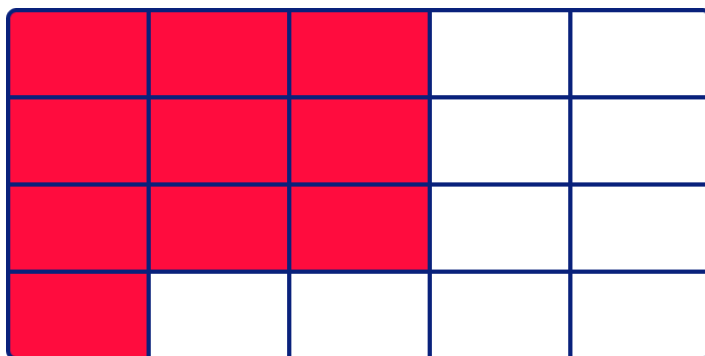
3) What is 5^3 ?
125

4) Fill in the boxes to make these fractions equivalent.

$$\frac{3}{7} = \frac{9}{21} = \frac{12}{28} = \frac{30}{70}$$

5) What fraction of this rectangle is red? $\frac{10}{20}$

What is this fraction in its simplest form? $\frac{1}{2}$



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