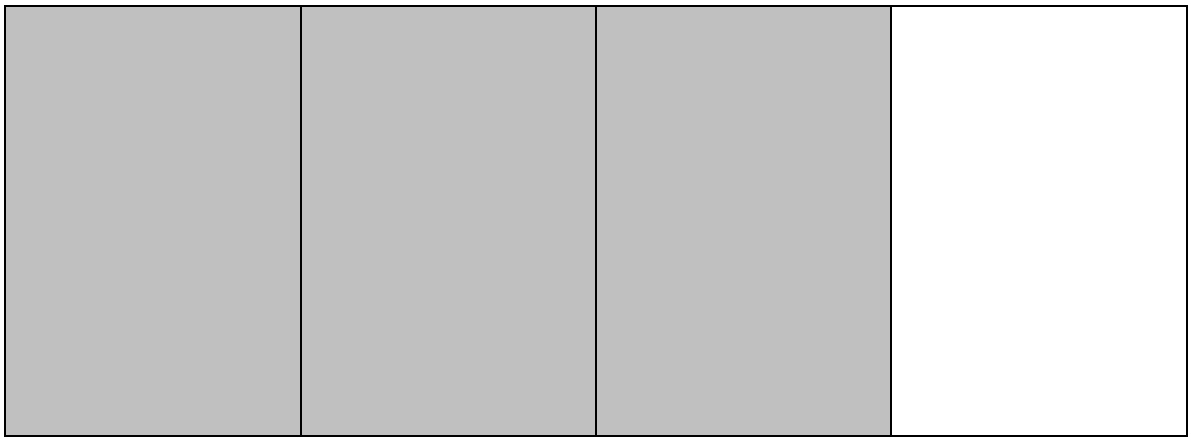
E 1

Ralph drew this model to represent $\frac{3}{4}$ of a rectangle. Kim correctly said that $\frac{3}{4}$ was equivalent to $\frac{6}{8}$ and to $\frac{12}{16}$.

Use this model or one of your own to show that Kim is correct.

Explain your thinking.

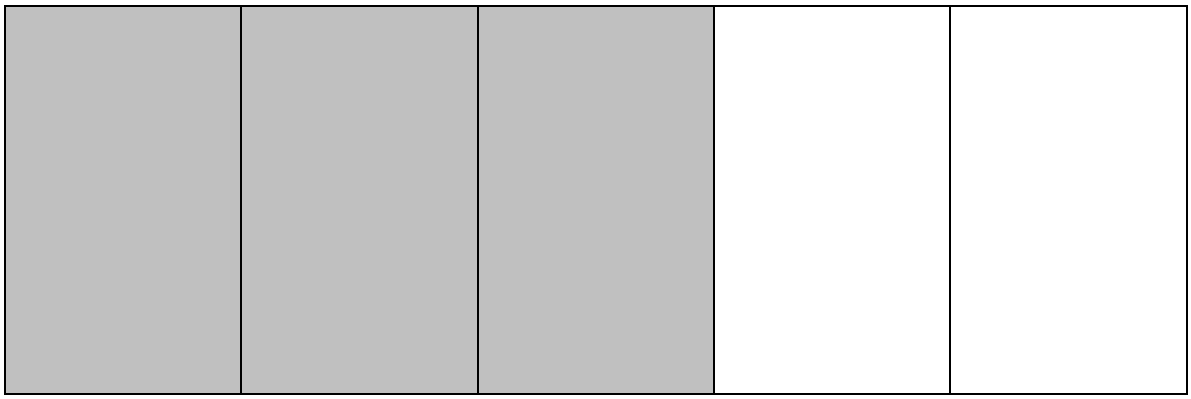


E 2

Ralph drew this model to represent $\frac{3}{5}$ of a rectangle. Kim correctly said that $\frac{3}{5}$ was equivalent to $\frac{6}{10}$ and to $\frac{9}{15}$.

Use this model or one of your own to show that Kim is correct.

Explain your thinking.

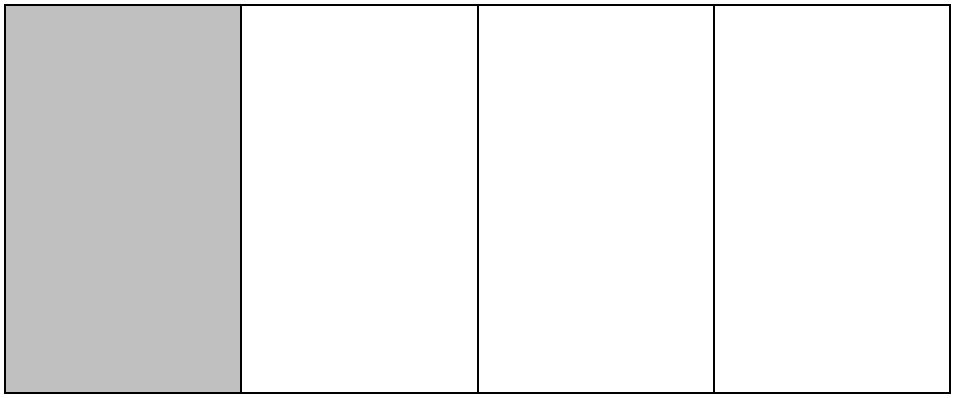


E 3

Ralph drew this model to represent $\frac{1}{4}$ of a rectangle. Kim correctly said that $\frac{1}{4}$ was equivalent to $\frac{2}{8}$.

Use this model or one of your own to show that Kim is correct.

Explain your thinking.

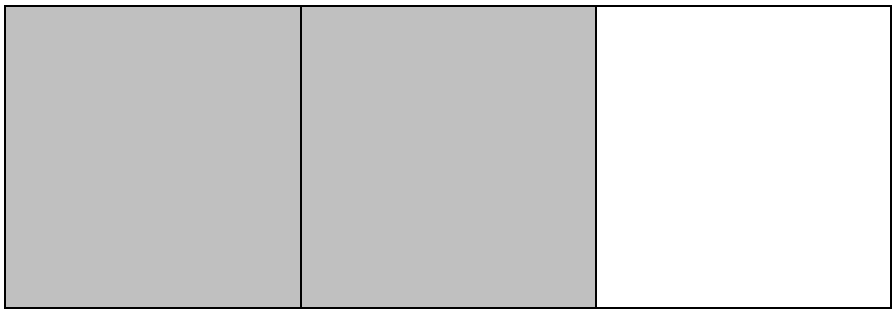


E 4

Ralph drew this model to represent $\frac{2}{3}$ of a rectangle. Kim said that $\frac{2}{3}$ was equivalent to $\frac{4}{6}$ and to $\frac{6}{9}$.

Use this model or one of your own to show that Kim is correct.

Explain your thinking.

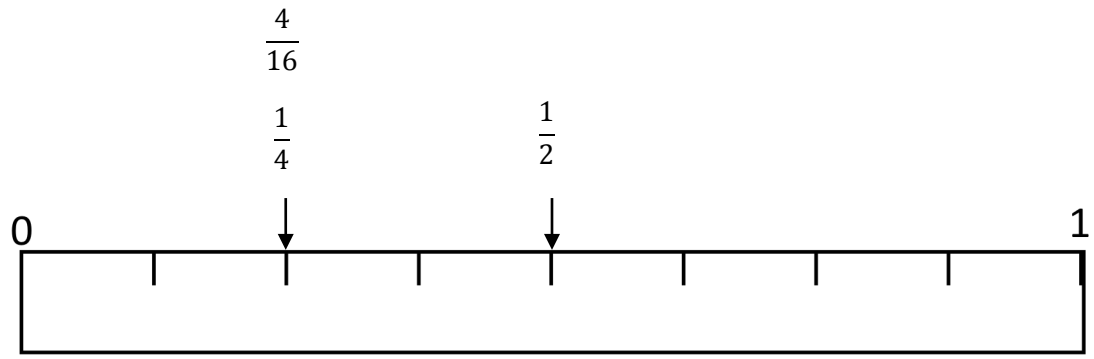


E 5

Sam correctly put the following fractions on the number line below.

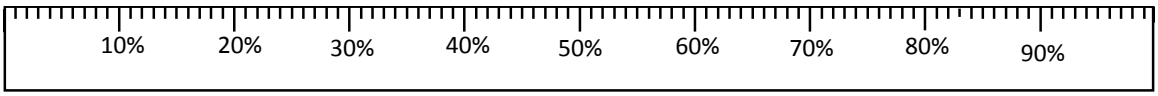
$\frac{1}{2}$ $\frac{1}{4}$ $\frac{4}{16}$

Explain why $\frac{1}{4}$ and $\frac{4}{16}$ are on the same location on the number line, but $\frac{1}{2}$ is not.



E 6

Use the number line below to explain why 30% is the same as $\frac{3}{10}$.

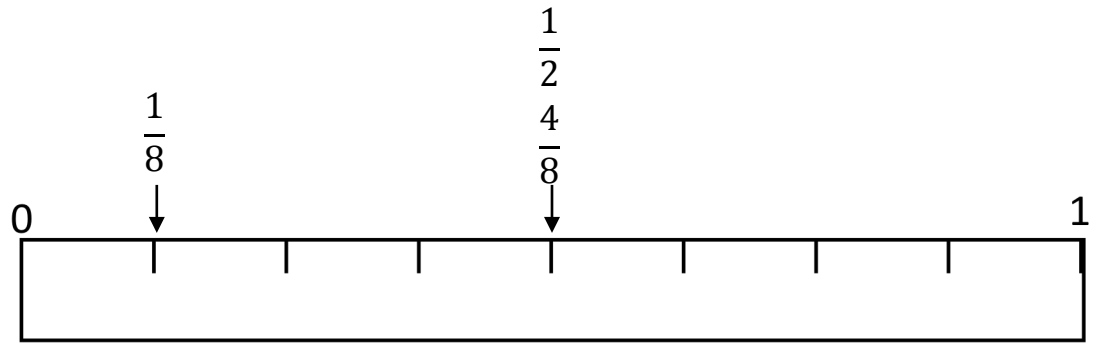


E 7

Sam correctly put the following fractions on the number line below.

$\frac{1}{2}$ $\frac{1}{8}$ $\frac{4}{8}$

Explain why $\frac{1}{2}$ and $\frac{4}{8}$ are on the same location on the number line, but $\frac{1}{8}$ is not.



E 8

Sam put the following fractions on the number line below.

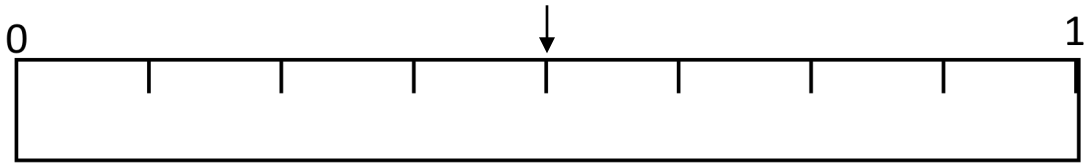
$\frac{1}{2}$ $\frac{4}{8}$ $\frac{3}{6}$

Is Sam correct? Explain your thinking.

$\frac{1}{2}$

$\frac{3}{6}$

$\frac{4}{8}$



E 9

Bob, Kay, and Meg cooked a tray of small pizzas.

Bob ate $1\frac{7}{8}$ pizzas.

Kay ate $2\frac{3}{8}$ pizzas.

Meg ate $\frac{15}{8}$ pizzas.

Who ate the same amount of pizza that Meg ate?

Explain your thinking.

E 10

Circle one fraction that is not equivalent to the other fractions.

$\frac{3}{5}$ $\frac{6}{10}$ $\frac{15}{20}$ $\frac{12}{20}$

Explain your thinking.

E 11

Circle one fraction that is not equivalent to the other fractions.

$\frac{20}{30}$ $\frac{5}{6}$ $\frac{15}{18}$ $\frac{10}{12}$

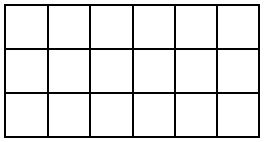
Explain your thinking.

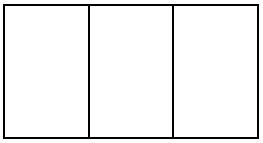
E 12

The two grids below are the same size.

Use the models below or models of your own to prove that $\frac{1}{3}$ and $\frac{6}{18}$ are equivalent fractions.

Explain your thinking.



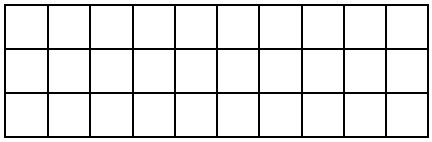


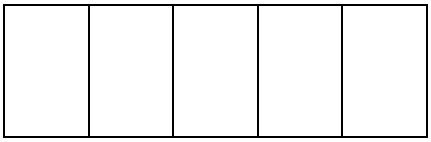
E 13

The two grids below are the same size.

Use the models below or ones of your own to prove that $\frac{3}{5}$ and $\frac{18}{30}$ are equivalent fractions.

Explain your thinking.



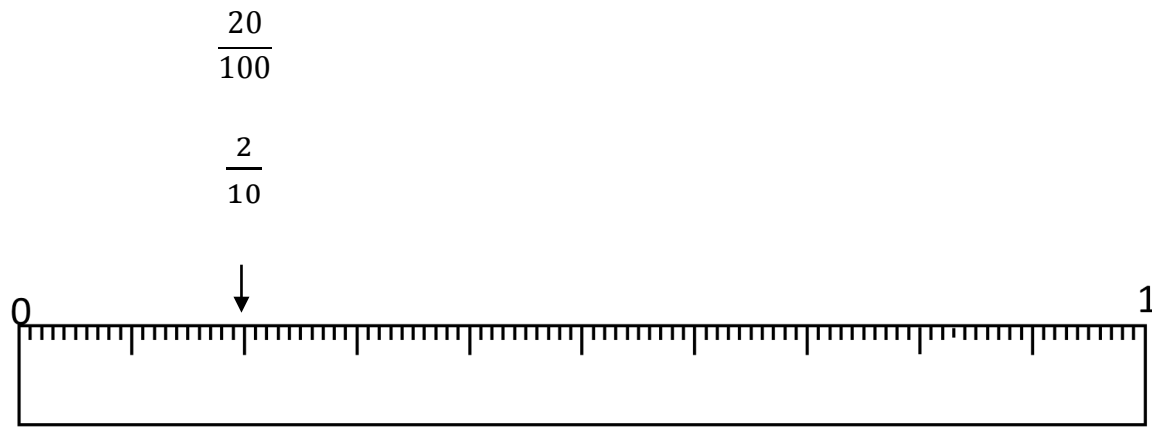


E 14

Sam put the following fractions on the number line below.

$\frac{2}{10}$ $\frac{20}{100}$

Explain why $\frac{2}{10}$ and $\frac{20}{100}$ are on the same location on the number line.

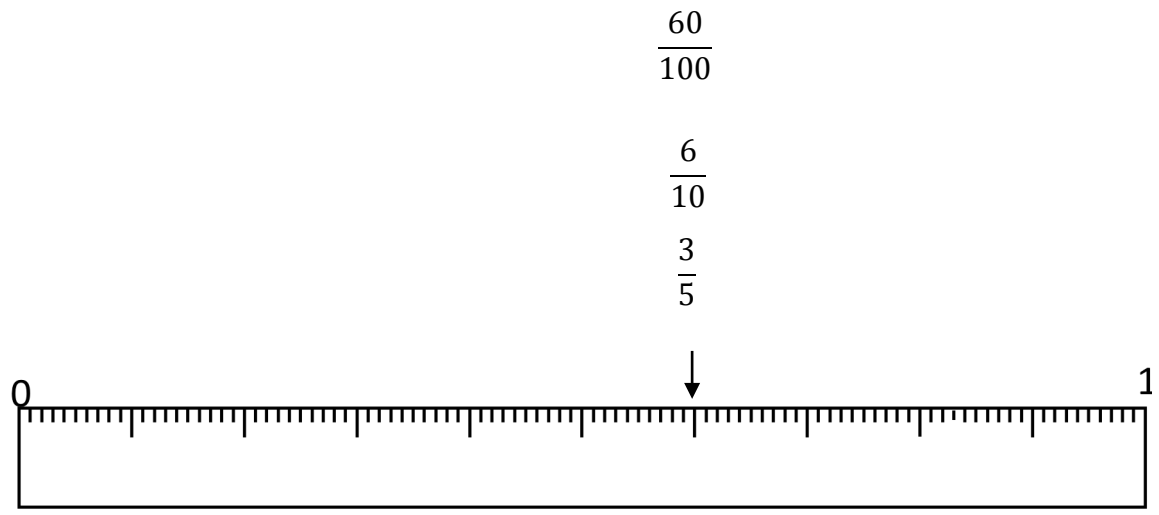


E 15

Sam put the following fractions on the number line below.

$\frac{6}{10}$ $\frac{3}{5}$ $\frac{60}{100}$

Explain why $\frac{6}{10}$, $\frac{3}{5}$, and $\frac{60}{100}$ are on the same location on the number line.



E 16

Sam's father taught him a strategy to find equivalent fractions. Below you will find a few examples Sam's father showed him.

$\frac{3}{4} \times \frac{\mathbf{2}}{\mathbf{2}} = \frac{6}{8}$ So, $\frac{3}{4} = \frac{6}{8}$

$\frac{2}{5} \times \frac{\mathbf{4}}{\mathbf{4}} = \frac{8}{20}$ So, $\frac{2}{5} = \frac{8}{20}$

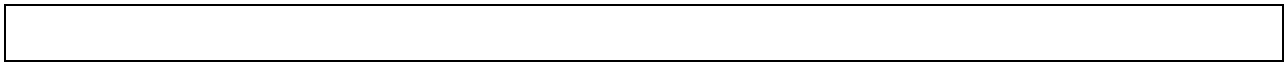
$\frac{1}{3} \times \frac{\mathbf{3}}{\mathbf{3}} = \frac{3}{9}$ So, $\frac{1}{3} = \frac{3}{9}$

Explain why this strategy works.

E 17

The first area model is shaded to show $\frac{4}{5}$.

Use the second area model to show that $\frac{8}{10}$ is equivalent to $\frac{4}{5}$.



Explain your thinking.

E 18

Helen learned that she could find equivalent fractions by multiplying the numerator and denominator by the SAME number.

Use this strategy to find equivalent fractions for the fractions below.

$\frac{3}{5} =$

$\frac{2}{5} =$

Make a model and explain why your work above is correct.

E 19

Alice is trying to find a fraction that is equivalent to $\frac{2}{3}$.

She started by writing $\frac{2}{3} = \frac{x}{10}$

Jasmine told her that although this is possible, the numerator will not be a whole number.

Is Jasmine correct? Explain your thinking.

E 20

Use the two models below to show whether $\frac{3}{5}$ is equivalent to $\frac{8}{15}$.

Is $\frac{3}{5}$ equivalent to $\frac{8}{15}$? Explain your thinking.

E 21

Use the two models below to show whether $\frac{2}{7}$ is equivalent to $\frac{6}{21}$.

Is $\frac{2}{7}$ equivalent to $\frac{6}{21}$? Explain your thinking.

E 22

Sheila used the two models below to show that $\frac{5}{6}$ is equivalent to $\frac{20}{24}$.

Use the two models below to show that the two fractions are equivalent.

Sheila noticed that in her model of $\frac{20}{24}$ there were 4 times more pieces in the whole than in $\frac{5}{6}$.

She also made an observation about the size of each piece. What do you think she noticed?

E 23

Name the fraction shaded below. _____

Name the fraction shaded below. _____

Are these two fractions equivalent?

Explain your thinking.

E 24

Name the fraction shaded below. _____

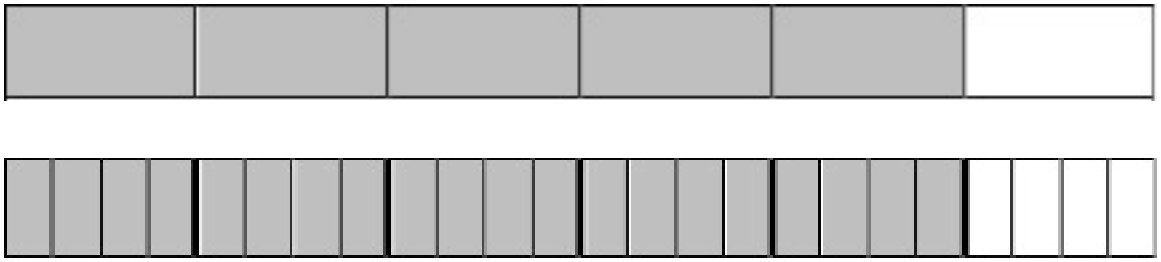
Name the fraction shaded below. _____

Are these two fractions equivalent?

Explain your thinking.

E 25

Sheila used the two models below to accurately show that $\frac{5}{6}$ is equivalent to $\frac{20}{24}$.



A) What do you notice about the size of the pieces and the number of pieces in each sixth and in the whole between her model for $\frac{5}{6}$ and her model for $\frac{20}{24}$?

Sheila's father taught her a strategy to find equivalent fractions. Below you will find a few examples Sheila's father showed her.

$\frac{3}{4} \times \frac{\mathbf{2}}{\mathbf{2}} = \frac{6}{8}$ So, $\frac{3}{4} = \frac{6}{8}$

$\frac{2}{5} \times \frac{\mathbf{4}}{\mathbf{4}} = \frac{8}{20}$ So, $\frac{2}{5} = \frac{8}{20}$

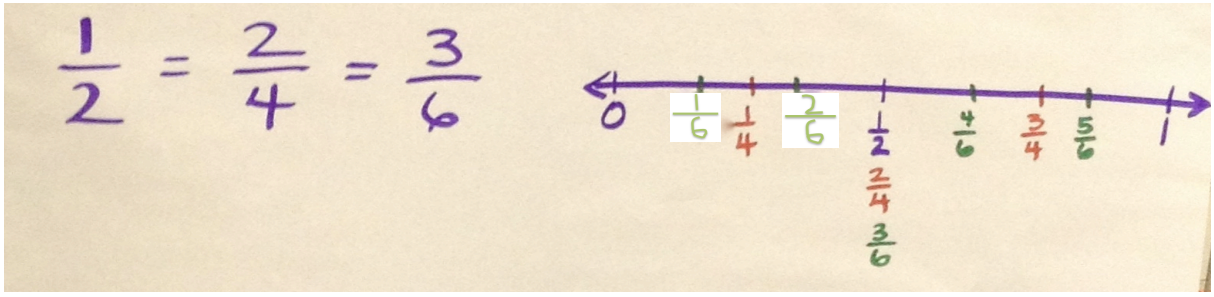
$\frac{1}{3} \times \frac{\mathbf{3}}{\mathbf{3}} = \frac{3}{9}$ So, $\frac{1}{3} = \frac{3}{9}$

B) Based on Sheila's model and your observations in Part A explain why this strategy works. (Use the back on this paper if you need more room for your answer.)

E 26

Kelyn used both a number line and an area model below to show her understanding of equivalent fractions.

A) Explain how the number line shows that $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$



B) Explain how the area models show that $\frac{3}{4} = \frac{9}{12} = \frac{12}{16}$.