

### Lesson Summary

Fractions, decimals, and percentages are all related.

To change a fraction to a percentage, you can scale up or scale down so that 100 is in the denominator.

Example:

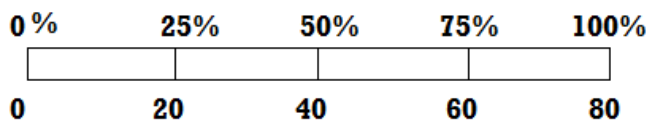
$$\frac{9}{20} = \frac{9 \times 5}{20 \times 5} = \frac{45}{100} = 45\%$$

There may be times when it is more beneficial to convert a fraction to a percent by first writing the fraction in decimal form.

Example:

$$\frac{5}{8} = 0.625 = 62.5 \text{ hundredths} = 62.5\%$$

Models, like tape diagrams and number lines, can also be used to model the relationships.



The diagram shows that  $\frac{20}{80} = 25\%$ .

### Problem Set

1. Use the  $10 \times 10$  grid to express the fraction  $\frac{11}{20}$  as a percent.
2. Use a tape diagram to relate the fraction  $\frac{11}{20}$  to a percent.
3. How are the diagrams related?
4. What decimal is also related to the fraction?
5. Which diagram is the most helpful for converting the fraction to a decimal? \_\_\_\_\_ Explain why.

