

11-3-17

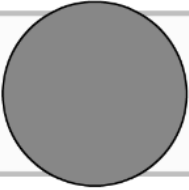
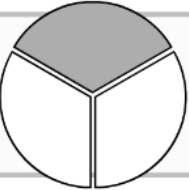
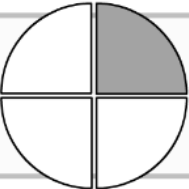
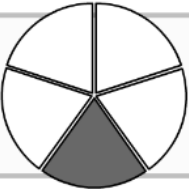
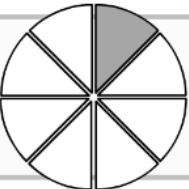
Aim: SWBAT continue to convert between fractions, decimals, and percentages.

HW: Worksheet

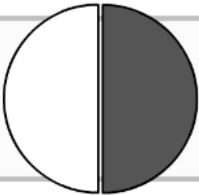
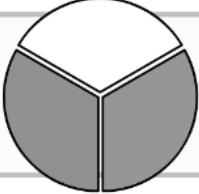
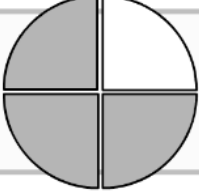
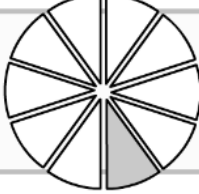
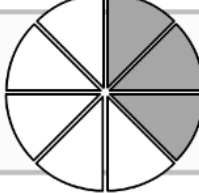
Conversion Quiz Wednesday

Do Now: Illustrate 75% and 7.5%

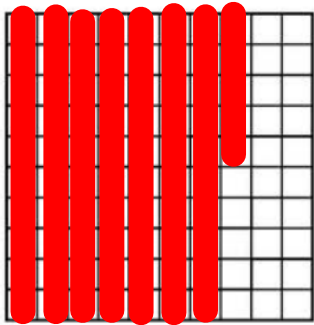
# FRACTIONS DECIMALS PERCENTAGES ①

	FRACTION		DECIMAL		PERCENTAGE
		DIVIDE NUMERATOR BY DENOMINATOR		MULTIPLY BY 100	
		CONVERT TO FRACTION		DIVIDE BY 100	
			<b>F</b>	<b>D</b>	<b>P</b>
1			1	=	1.0 = 100%
2			$\frac{1}{3}$	=	$0.\bar{3}$ = $33\frac{1}{3}\%$
3			$\frac{1}{4}$	=	0.25 = 25%
4			$\frac{1}{5}$	=	0.2 = 20%
5			$\frac{1}{8}$	=	0.125 = 12.5%

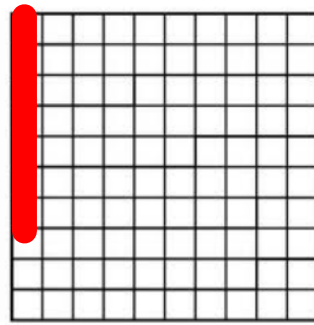
# FRACTIONS DECIMALS PERCENTAGES ②

	FRACTION	DECIMAL	PERCENTAGE
		D	P
6		$\frac{1}{2} = 0.5$	$= 50\%$
7		$\frac{2}{3} = 0.\bar{6}$	$= 66\frac{2}{3}\%$
8		$\frac{3}{4} = 0.75$	$= 75\%$
9		$\frac{1}{10} = 0.1$	$= 10\%$
10		$\frac{3}{8} = 0.375$	$= 37.5\%$

Illustrating A Percent

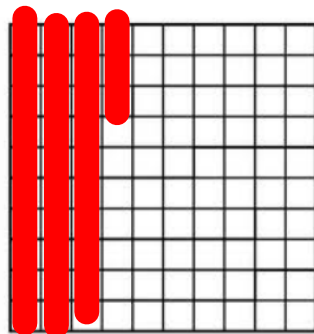


Percent	Decimal	Fraction
75%	0.75	$\frac{75}{100} = \frac{3}{4}$



Percent	Decimal	Fraction
7.5%	0.075	$\frac{7}{40}$

$$\frac{7.5}{100} \times \frac{10}{10} = \frac{75}{1000} = \frac{3}{40}$$



Percent	Decimal	Fraction
$33\frac{1}{3}\%$	$0.\bar{3}$	$\frac{1}{3}$

$$\frac{33\frac{1}{3}}{100}$$

$$33\frac{1}{3} \div 100$$

$$\frac{100}{3} \div 100$$

$$\frac{100}{3} \cdot \frac{1}{100}$$

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

$$3 \overline{) 1.000}$$

$$\underline{- 9} \phantom{00}$$

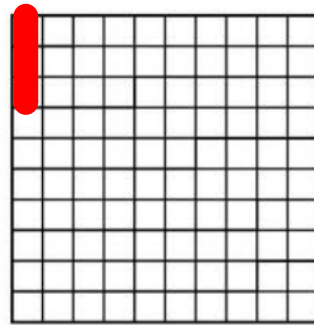
$$10 \phantom{0}$$

$$\underline{- 9} \phantom{0}$$

$$10$$

$$\underline{- 9}$$

$$1$$



Percent	Decimal	Fraction
$3\frac{1}{3}\%$	$0.0\bar{3}$	$\frac{1}{30}$

$$\frac{3\frac{1}{3}}{100}$$

$$3\frac{1}{3} \div 100$$

$$\frac{10}{3} \div 100$$

$$\frac{10}{3} \cdot \frac{1}{100}$$

$$\frac{1}{30}$$

$$30 \overline{) 1.000}$$

$$\underline{- 90} \phantom{00}$$

$$100 \phantom{0}$$

$$\underline{- 90}$$

$$100$$

$$\underline{- 90}$$

$$10$$

## Types of Decimals

**Terminating decimal:** A decimal that has a final digit.

\* Can be written as a fraction.

1.5

27.32

**Repeating decimal:** A decimal in which one or more digits repeats infinitely.

\* Can be written as a fraction.

0.5555...

0.2525...

3.18444...

$0.\overline{5}$

$0.\overline{25}$

$3.18\overline{4}$

Which is the most appropriate answer if 6 repeats?

$0.\overline{666}$

$0.\overline{66}$

$0.\overline{6}$

$0.\overline{66}$

**Non-terminating and non-repeating decimal:** A decimal that neither terminates nor repeats, but continues with no pattern.

\* Cannot be written as a fraction.

$\pi = 3.1415926 \dots$

Write each percentage as a decimal and a fraction.

Percent  $\div 100 =$  Fraction vs. Mixed Number

Divide with long division or as a fraction that gets manipulated.

$$65\% \quad 65 \div 100 \\ 0.65 ; \frac{13}{20}$$

$$*250\% \quad 250 \div 100 \\ 2.5 ; \frac{5}{2} ; 2\frac{1}{2}$$

$$*0.3\% \quad 0.3 \div 100 \\ 0.003 ; \frac{3}{1000}$$

$$25\% \quad 25 \div 100 \\ 0.25 ; \frac{1}{4}$$

$$*325\% \quad 325 \div 100 \\ 3.25 ; \frac{13}{4} ; 3\frac{1}{4}$$

$$*0.2\% \\ 0.002 ; \frac{1}{500}$$

Name \_\_\_\_\_

**Extra Practice**  
(Lesson 10-7)

**Fractions, Decimals, and Percents**

*Change each fraction to a percent.*

- |                     |                    |                    |
|---------------------|--------------------|--------------------|
| 1. $\frac{3}{8}$    | 2. $\frac{5}{7}$   | 3. $\frac{1}{15}$  |
| 4. $\frac{3}{25}$   | 5. $\frac{6}{5}$   | 6. $\frac{9}{75}$  |
| 7. $\frac{2}{9}$    | 8. $\frac{5}{13}$  | 9. $\frac{8}{11}$  |
| 10. $\frac{9}{40}$  | 11. $\frac{7}{80}$ | 12. $\frac{6}{15}$ |
| 13. $\frac{10}{70}$ | 14. $\frac{8}{90}$ | 15. $\frac{4}{33}$ |

Fraction X 100

*Change each decimal to a percent.*

- |          |           |            |
|----------|-----------|------------|
| 16. 0.5  | 17. 2.72  | 18. 0.65   |
| 19. 34.1 | 20. 9.1   | 21. 0.08   |
| 22. 15.7 | 23. 8.624 | 24. 35.13  |
| 25. 6.8  | 26. 0.01  | 27. 0.0125 |

Decimal X 100

*Change each percent to a fraction in simplest form.*

- |                      |                       |                       |
|----------------------|-----------------------|-----------------------|
| 28. 6%               | 29. 12%               | 30. 2.5%              |
| 31. $3\frac{1}{2}\%$ | 32. $33\frac{1}{3}\%$ | 33. 14.6%             |
| 34. $6\frac{1}{4}\%$ | 35. 4.25%             | 36. $4\frac{3}{4}\%$  |
| 37. 175%             | 38. $8\frac{1}{8}\%$  | 39. 5.75%             |
| 40. 408%             | 41. $62\frac{1}{2}\%$ | 42. $71\frac{3}{7}\%$ |
| 43. 8.75%            | 44. $\frac{1}{3}\%$   | 45. $\frac{1}{2}\%$   |

Percent ÷ 100

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