

CW
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CH/13: PERCENTAGE

classmate

Date _____

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EXERCISE 13 A

1. Express the following as percentage.

a. $\frac{31}{100} = 31\%$ b. $\frac{18}{100} = 18\%$ c. $\frac{3}{100} = 3\%$

d. $\frac{85}{100} = 85\%$ e. $\frac{29}{100} = 29\%$

2. Express each of the following as a fraction with 100 as denominator.

a. $41\% = \frac{41}{100}$ b. $56\% = \frac{56}{100}$ c. $62\% = \frac{62}{100}$

d. $69\% = \frac{69}{100}$ e. $93\% = \frac{93}{100}$

3. Express each of the following fractions as a percentage.

a. $\frac{1}{4} = \frac{1}{4} \times 100 = \frac{1}{4} \times \frac{25}{100} = 25\%$

b. $\frac{9}{10} = \frac{9}{10} \times 100 = \frac{9}{10} \times \frac{10}{10} = \frac{90}{100} = 90\%$

c. $\frac{17}{20} = \frac{17}{20} \times 100 = \frac{17}{20} \times \frac{5}{5} = \frac{85}{100} = 85\%$

d. $4\frac{1}{2} = 4\frac{1}{2} \times 100 = \frac{41}{2} \times \frac{50}{50} = \frac{50}{100} = 450\%$

e. $\frac{17}{10} = \frac{17}{10} \times 100 = \frac{17}{10} \times \frac{10}{10} = \frac{170}{100} = 170\%$

4) Express each of the following fraction as a fraction in it's lowest term

$$(a) 38\% = \frac{38}{100} = \frac{19}{50} \quad (b) 47\% = \frac{47}{100} = \frac{47}{100}$$

$$(c) 78\% = \frac{78}{100} = \frac{39}{50} = \frac{18}{25} \quad (d) 82\% = \frac{82}{100} = \frac{41}{50}$$

$$(e) 67\frac{1}{3}\% = \frac{101}{150} \quad (f) 112\frac{1}{2}\% = 1\frac{1}{8} \quad (g) 16\frac{2}{3}\% = \frac{1}{6}$$

$$(h) 11\frac{1}{2}\% = \frac{3}{200}$$

5. Express each of the following as a decimal fraction.

$$a. 13\% = \frac{13}{100} = 0.13 \quad b. 24\% = \frac{24}{100} = 0.24$$

$$c. 69\% = \frac{69}{100} = 0.69 \quad d. 81\% = \frac{81}{100} = 0.81$$

$$e. 105\% = \frac{105}{100} = 1.05 \quad f. 250\% = \frac{250}{100} = 2.50$$

$$g. 6.25\% = \frac{625}{10000} = 0.0625 \quad h. 10.02\% = \frac{1002}{10000} = .1002$$

6. Express each of the following decimal fraction into percentage.

$$(a) 0.58 = \frac{58}{100} = 58\% \quad (b) 0.483 = \frac{483}{1000} = 48.3\%$$

$$(c) 2.76 = \frac{276}{100} = 276\% \quad (d) 9.243 = \frac{9243}{1000} = 924.3\%$$

$$(e) 6.025 = \frac{6025}{1000} = 602.5\% \quad (f) 3.96 = \frac{396}{100} = 396\%$$

$$(g) 4.02 = \frac{402}{100} = 402\% \quad (h) 8.75 = \frac{875}{100} = 875\%$$

7. Which one is equivalent to 5%?

(a) 0.5 (b) ~~0.05~~ (c) 5 (d) 0.005

8. Which of the following is equivalent to 12.5%?

a. 1.25 b. 0.0125 c. 125 d. ~~0.125~~

9. Which of the following is equivalent to 7.5?

a. 75% b. 750% c. ~~0.75%~~ d. 7.5%

10. Which one is equivalent to 6.08?

a. 60.8 b) 6.08% c) ~~608%~~ d) 0.608%