

Name _____

Date 2018Chapter
6

Practice Test

Write the percent as a decimal.

1. 66.7%
 ≈ 0.667

2. 0.1%
 ≈ 0.001

3. Thursday afternoon between 4:00 and 5:00 you spend $\frac{1}{4}$ of the hour reading email, 0.4 hour doing homework, and 35% of the hour doing chores. Write the tasks in order from least amount of time to greatest.

$\frac{1}{4} = 0.25$ 0.4 0.35

reading mail, chores, homework

Find the missing value.

4. 35% of what number is 21?

$$\frac{21}{.35} = \frac{.35X}{.35}$$
$$60 = X$$

5. 70 is what percent of 56?

$$\frac{70}{56} = \frac{X \cdot 56}{56}$$
$$1.25 = X$$
 125%

6. 17 is what percent of 68?

$$\frac{17}{68} = \frac{X \cdot 68}{68}$$
$$0.25 = X$$
 25%

7. What number is 16% of 80?

$$X = .16(80)$$
$$= 12.8$$

Identify the percent of change as an *increase* or *decrease*. Then find the percent of change. Round to the nearest tenth of a percent, if necessary.

8. 15 books to 21 books

$$\frac{21-15}{15} = 0.4$$
 40%
Increase

9. 60 cars to 24 cars

$$60-24 = \frac{36}{60}$$

0.6 Decrease
60%
or 60% decrease

Use the percent of change to find the new amount.

10. \$84 increased by 12%

$$84 \times 1.12 = 94.08$$

11. 820 brushes decreased by 25%

$$820 \times .75 = 615 \text{ brushes}$$

Find the original price, discount, sale price, or selling price.

12. Original price: \$82

Discount: 10%

Sale price: ?

$$X = .9(82)$$
$$X = 73.80$$

13. Original price: \$125

Discount: ?

Sale price: \$81.25

$$\frac{81.25}{125} = \frac{X \cdot 125}{125}$$

$$0.65 = X$$

$$100 - 65 = 35\%$$
 Discount

14. Original price: ?

Discount: 36%

Sale price: \$32

$$32 = .64X$$

$$\frac{32}{.64} = \frac{.64X}{.64}$$

$$50 = X$$

15. Cost to store: \$32

Markup: 16%

Selling price: ?

$$X = (1.16)(32)$$

$$X = 37.12$$

$$I = prt$$

An account earns annual simple interest. Find the interest earned, principal, interest rate, or time.

16. Interest earned: \$84
Principal: \$600
Interest rate: 7%
Time: ?

$$I = prt$$

$$84 = 600(0.07)t$$

$$\frac{84}{42} = \frac{42}{42} t$$

$$t = 2 \text{ yrs}$$

17. Interest earned: ?
Principal: \$1250
Interest rate: 3%
Time: 4 years

$$I = prt$$

$$I = (1250)(0.03)(4)$$

$$I = \$150$$

18. Interest earned: \$39.60
Principal: ?
Interest rate: 11%
Time: 6 months

$$39.60 = P(0.11)(6/12)$$

$$\frac{39.60}{0.055} = \frac{P(0.055)}{0.055}$$

$$P = \$720$$

19. Interest earned: \$3250
Principal: \$5000
Interest rate: ?
Time: 10 years

$$3250 = 5000r(10)$$

$$\frac{3250}{50,000} = \frac{50,000r}{50,000}$$

$$0.065 = r$$

$$r = 6.5\%$$

An account earns annual simple interest. Find the balance of the account.

20. \$250 at 4% for 1 year

a) $I = prt$
 $= 250(0.04)(1)$
 $I = \$10$

b) Balance = $250 + 10 = \$260$

21. \$2000 at 9% for 6 months

a) $I = 2000(0.09)(0.5)$
 $I = \$90$

b) Balance $2000 + 90 = \$2090$

22. The percent of sales tax is 6%. What is the sales tax on a skateboard that costs \$98?

$$6\% = 0.06$$

$$0.06 \times 98 = \$5.88$$

23. The price of your favorite brand of jeans was \$35 last month. This month the price is \$42. What is the percent of change from last month to this month?

$$42 - 35 = \frac{7}{35} = 0.2 \quad 20\% \text{ Increase}$$

24. You are shopping for a cell phone. At which store should you buy the cell phone? Explain your answer.

Store	Original Price	Discount
A	\$129	30%
B	\$135	35%
C	\$150	40%

$$100 - 30 = 70$$

$$100 - 35 = 65$$

$$100 - 40 = 60$$

$$A = 129 \times 0.70 = \$90.30$$

$$B = 135 \times 0.65 = \$87.75$$

$$C = 150 \times 0.60 = \$90$$

Store B - cheaper after Discount