

Math 6 Practice Test: Proportional Relationships:
Percent and Measurements

Name: _____

Date: _____

1. Define each of the following terms:

a. percent

b. proportion

2. Order the numbers from least to greatest. $\frac{11}{40}$, .256, 24%, $\frac{1}{4}$, .2499,

3. a. Write 5% as a fraction in simplest form and as a decimal.

Fraction _____

Decimal _____

b. Write $\frac{14}{25}$ as a decimal and as a percent.

Decimal _____

Percent _____

c. Write .625 as a fraction in simplest form and a percent.

Fraction _____

Percent _____

Draw a **model** to solve each of the following:

4. *What % of 50 is 10?*

5. *40% of 55 is what*

6. *35% of what is 70?*

Solve each of the following using a **proportion**. Show your work.

7. 50% of what is 80? 8. What percent of 12 is 9? 9. 25% of 90 is what?

Solve each of the following using any method. Show your work.

10. What percent of 54 is 18? 11. 6% of 36 is what? 12. 17% of what is 51?

13. Select **all** expressions that demonstrate a correct method to calculate 48% of 200.

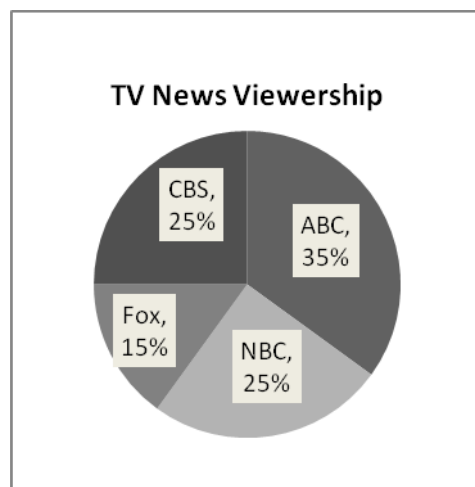
A.	$\frac{12}{50} \cdot 200$
B.	$.48 \cdot 200$
C.	$\frac{.48}{100} \cdot 200$
D.	$\frac{48}{100} \cdot 200$
E.	$\frac{48}{100} = \frac{200}{x}$

14. Which of the following amounts is greatest?

A.	65% of 150
B.	50% of 200
C.	60% of 180
D.	100% of 105

15. A survey was sent to 300 people to determine their favorite TV news show. The results of the survey are shown in the circle graph. Exactly how many of the people surveyed chose **ABC** as their favorite network?

- A. 35 people
B. 45 people
C. 75 people
D. 105 people

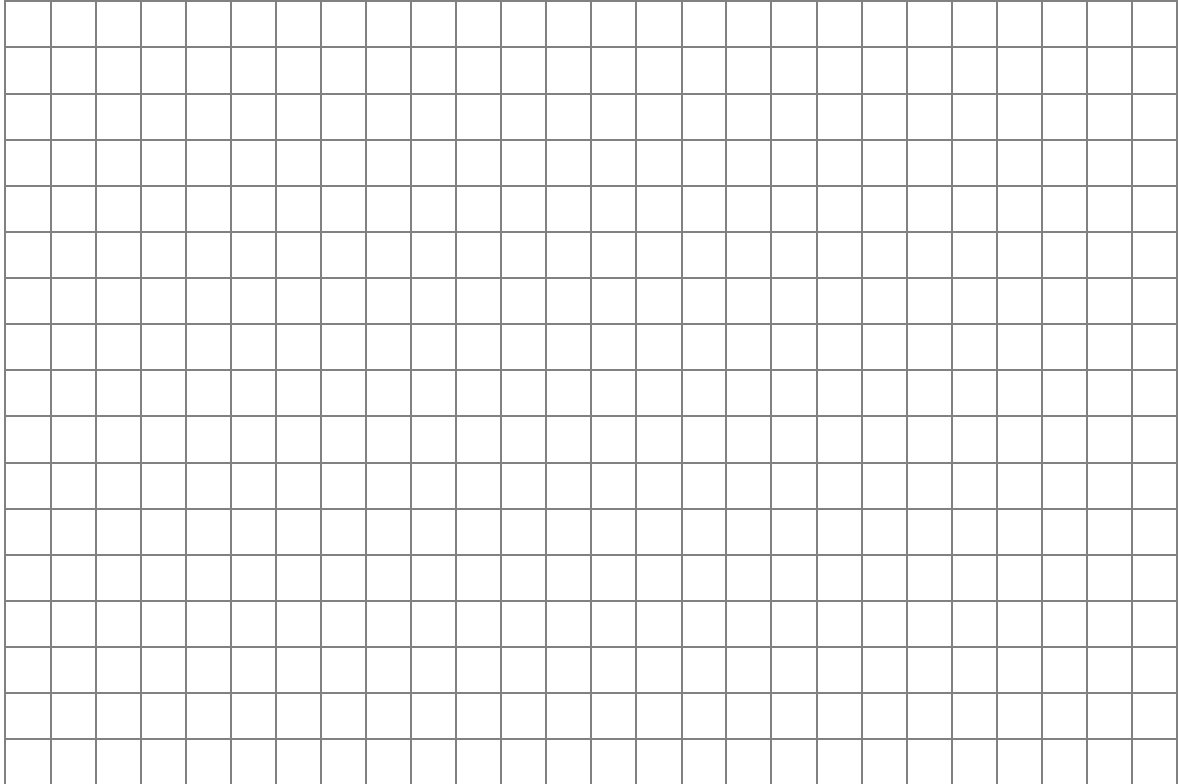


16. There are 20 sports cars at Deals R Us. 45% are red. How many cars are red sports cars? Show your work.
17. A file Zack wants to download says it will take about 28 minutes. His computer shows that 16 minutes have passed since the download began. What percent of the file has not been downloaded?
18. Sandra needs 180 feet of purple ribbon to prepare party decorations. How many yards of ribbon is this? Use a proportion. Show your work.
19. In Physical Education class, Jameen must run 160 meters. About how many feet is this? Use a proportion. Show your work.
20. Jake grew an average of 0.5 cm per month last year. How many inches did he grow in the year? (Use $2.54 \text{ cm} = 1 \text{ in}$) Use a proportion. Show your work.
21. (NAEP) Angela ate dinner with a group of friends. The restaurant would not give them separate checks, so each friend had to determine what she owed. Angela's meal cost \$9.76. If sales tax is 8.1% and she wants to leave a 17% tip, estimate how much she should pay. Show your work.
- A. \$10.80
 - B. \$12.50
 - C. \$15.00
 - D. \$27.00
 - E. \$35.00
22. All the members of 19 scout troops are going on a field trip. There are exactly 26 members in each troop. The scouts will ride school buses – 48 students can ride each bus – to the field trip location. Which of the following is the **best** ESTIMATE of the percent of all the troop members going on the field trip who will be riding on each of the buses?
- A. 5%
 - B. 10%
 - C. 25%
 - D. 40%

23. (NAEP) One store, Price Pleasers, reduces the price each week of a \$100 stereo by 10 percent of the original price. Another store, Bargains Plus, reduces the price each week of the same \$100 stereo by 10 percent of the previous week's price. After 3 weeks, how will the prices at the two stores compare?

- (A) The price will be cheaper at Price Pleasers.
- (B) The price will be the same at both stores.
- (C) The price will be cheaper at Bargains Plus.

Explain your reasoning.



Long Term Memory Review

24. An expression is shown below.

$$4n + 7$$

What is the value of the expression when $n = 8$? Show your work.

- A. 19
- B. 31
- C. 39
- D. 55

25. If a person walks $\frac{1}{3}$ mile in each $\frac{1}{6}$ hour, find the unit rates using a model.