

Grade 6 • Unit 3 Worksheet

Unit Rates and Percentages

Name: _____

Date: _____

Part A • Unit Rates

A unit rate tells how much for ONE. Be careful WHICH unit rate you're computing.

1. A pack of 8 markers costs \$6.40.
 - a. What is the cost per marker? \$ _____
 - b. How many markers can you buy for \$1? _____
 - c. Which unit rate is easier to use to find the cost of 15 markers? Explain.

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2. Lin runs 600 meters in 4 minutes at a constant speed. Diego runs 720 meters in 5 minutes at a constant speed. Who is running faster? Show your work.

Lin's rate: _____ m/min

Diego's rate: _____ m/min

Faster runner: _____

Justify with the unit rates:

Part B • Unit Conversion

3. A recipe calls for 250 mL of milk. You only have a measuring cup that measures in cups. (1 cup $\approx$ 240 mL.)

About how many cups of milk should you use? _____

Show your reasoning:

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4. Convert 8 feet into inches AND into yards.

8 ft = _____ in

8 ft = _____ yd

When you convert from a LARGER unit to a SMALLER unit, do you get more or fewer of the new unit? Why?

Part C • Percentages

5. A shirt that normally costs \$40 is on sale for 25% off.

- a. How much is the discount? \$_____
- b. What is the sale price? \$_____
- c. Show your work (use a tape diagram or double number line):

6. Mai got 18 out of 24 questions correct on a test. What percent did she get correct?

Show your work:

Mai got _____ % correct.

7. If 30% of a number is 45, what is the number?

Reason using a tape diagram or double number line:

The number is _____.

Part D • Error Analysis

8. Andre claims: 'If a sweater is 20% off and then another 30% off, that's a total discount of 50%.' Is Andre correct?

☐ Yes ☐ No

Try it on a \$100 sweater to test:

Explain what's wrong with Andre's reasoning:

9. Two grocery stores sell apples at different rates. Store A: 5 lb for \$9. Store B: 3 lb for \$5.40. Which is the better deal? Show your work using unit rates.

Part E • Thinking Deeply

10. Reflect: When you're comparing two rates, why is converting to unit rates helpful? Could you use ratios alone? Discuss when each approach is more useful.

11. A class is 60% girls. There are 18 girls. How many boys are in the class? Show two different methods.

Method 1:

Method 2:

Final answer: _____ boys