

11. Mixed Application — Worksheet C

Name: _____ **Class:** _____ **Date:** _____

Before solving, name the relationship, anchor model, and check.

1. A laptop costs \$900. It is 20% off, then 12% tax is added to the sale price.

2. Boys:girls = 5:7 and the total is 36. Find both numbers.

3. A recipe uses 4 cups of flour for 10 muffins. How much flour for 35 muffins?

4. Which is better value: 750 mL of juice for \$2.85 or 1.5 L for \$5.40?

5. A car travels 420 km in 6 hours. How far in 9 hours at the same speed?

6. A school has 480 students. 35% are Grade 7. How many are not Grade 7?

7. A population of 600 increases by 20%, then decreases by 15%.

8. A map uses $1 \text{ cm} = 15 \text{ km}$. The map distance is 8.4 cm.

9. A photo is 14 cm by 21 cm and is enlarged to width 42 cm. Find the new height.

10. A taxi charges \$6 to start and \$1.50/km. Make a table for 0–3 km and decide whether the relationship is proportional.

11. **What matters and what doesn't:** A store manager works 40 hours a week and supervises 8 staff. A \$150 jacket is 25% off, then 8% tax is added to the sale price. Find the final price. Which details in this problem were not needed to answer it?

12. **Reconstruct the situation:** The equation $0.30 \times 240 = 72$ represents a real percent situation. Write a context for it, and explain what the 240, the 0.30, and the 72 each mean.

12. Classification and Justification Practice

For each problem, write only the classification, anchor model, and intended check. Do not calculate until a partner or teacher approves the classification.

1. A school has 240 students and 30% are absent.

2. A map scale is 1 cm = 12 km.

3. A worker earns \$18 per hour.

4. A table has (0,0), (1,5), (2,10).

5. A package offers 750 mL for \$3.15 and 1.5 L for \$6.00.

6. A class has boys:girls = 3:4 and 28 students.

7. A jacket is discounted and then taxed.

8. A taxi has a starting fee.

Expected classification language

Use phrases such as “part-to-whole percent,” “ratio with total,” “unit rate,” “common-unit comparison,” “proportional table,” “multi-step percent with changing base,” “scale,” and “non-proportional starting amount.”
