

Paper Practice 1.3

Properties of Real Numbers

Examples 1–3

Identify the property of equality used to justify each statement.

1. If $6 + 11 = 17$, then $17 = 6 + 11$.

2. $z + 6 = z + 6$

Use the given property of equality to complete each statement.

3. If $x + 4 = y - 1$ and $x + 4 = 2$, then $y - 1 =$ _____ ;

Transitive Property of Equality

4. If $8 + 13 = 21$, then $21 = 8 +$ _____ ;

Symmetric Property of Equality

5. **MEASUREMENT** A cook stores soup to sell by the pint. The cook knows that 1 pint is equal to 2 cups, and that 2 cups is equal to 16 fluid ounces.

a. If one container holds 1 pint of soup, how many fluid ounces of soup does the container hold?

b. Which property would you use to determine the capacity of the container in fluid ounces?

Examples 4–6

Evaluate each expression. Name the property used in each step.

6. $5(7 \cdot 4 - 27)$

7. $4 + 8(6 - 2 \cdot 3)$

8. $10[5 \div (8 - 3) - 1] + 3$

9. $6 \left[4 + (6 + 2) \frac{1}{8} \right]$

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Examples 7–9

Evaluate each expression using properties of numbers. Name the property used in each step.

10. $16 + 38 + 14 + 22$

11. $3\frac{1}{5} + 2\frac{3}{5}$

12. $6.7 + 1.4 + 0.3 + 2.6$

13. $7 \cdot 5 \cdot 4 \cdot 2$

14. $3\frac{2}{3} \cdot 1\frac{1}{4} \cdot 24$

15. $58 + 17 + 22 + 23$