

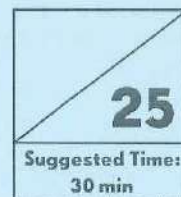
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CHAPTER TEST A



Algebraic Expressions



Concepts and Skills (10 × 1 point = 10 points)

Write an algebraic expression for each of the following.

1. The product of 8 and p _____

2. The sum of $\frac{2}{3}m$ and $\frac{1}{5}$ _____

Evaluate each expression when $x = 4$.

3. $\frac{10 - x}{3} + \frac{3x + 6}{9}$

4. The product of $(7x + 2)$ and $\frac{20 - 3x}{4}$

Simplify each expression.

5. $3 + 3s - 2s$

6. $7y + 10 + 3y - 7 - 6y$

Solve. Show your work.

7. Factor the expression $12p + 30$.

8. Expand the expression $2(r - 4) + 5(r + 2)$. Express your answer in simplest form.

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State whether each pair of expressions is equivalent.

9. $13z + 5 + 2z$ and $5(3z + 1)$

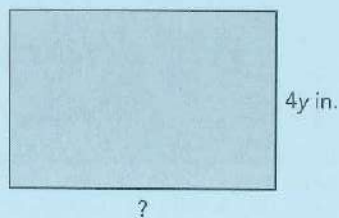
10. $12 - 3z + \frac{6z}{2}$ and $6(z - 2)$

Problem Solving (Questions 11: 2 points, Questions 12 to 14: 3×3 points = 9 points, Question 15: 4 points)

Solve. Show your work.

11. A bricklayer can lay 20 bricks in an hour. How many bricks can he lay in t minutes?

12. The perimeter of a rectangle is 128 inches. The width of the rectangle is $4y$ inches. Find the length of the rectangle in terms of y .



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13. Five packets of almonds cost $2m$ dollars. Mandy buys 3 packets of almonds. How much change does she receive if she paid with a \$10 bill? Give your answer in terms of m .

14. Mr. Franz bought x cans of fruit cocktail. He bought 2 more cans of mushrooms than cans of fruit cocktail.

a) How many cans of fruit cocktail and mushrooms did he buy? Give your answer in terms of x .

b) A can of mushrooms cost 80 cents and a can of fruit cocktail cost 90 cents. How much money did Mr. Franz spend? Express your answer in terms of x in dollars.

15. Riley has $(8p + 7)$ one-dollar coins and $(2p + 5)$ one-dollar bills. Pam has $7p$ dollars fewer than Riley.

a) How much money does Pam have? Give your answer in terms of p .

b) If $p = 6$, how much money will Pam have after she gives half of her money to Riley?