

Algebra: Expressions and Equations Quiz

Time: 20 min. 6 questions.

Instructions

Answer all six questions using what you know about numerical expressions, algebraic expressions, and equations. Show your work where it helps you check your answer. Read each question carefully before you write your response.

Questions

1. Evaluate the expression $15 \div (6 + 4)$. Which answer is correct?
A) 5
B) 13
C) 25
D) 9
([Knowledge](#), [Skills](#))
2. Twenty apples, n , are shared equally among 5 friends. Write an algebraic expression that describes how many apples each friend gets.
([Knowledge](#), [Skills](#))
3. True or false: In the expression $3g$, the letter g is called the coefficient.
([Knowledge](#))
4. Evaluate the expression $4x + 7$ when $x = 3$. What is the value of the expression?
([Skills](#))
5. To solve the equation $y + 8 = 20$, which operation should you apply to both sides?
A) Add 8
B) Subtract 8
C) Multiply by 8
D) Divide by 8
([Knowledge](#), [Skills](#))
6. Mia solves the equation $p \div 5 = 12$ and gets $p = 17$. Explain how she can check whether her solution is correct.
([Skills](#), [Understanding](#))

Curriculum coverage

Question	Outcome alias(es)
1	Knowledge, Skills
2	Knowledge, Skills
3	Knowledge
4	Skills
5	Knowledge, Skills
6	Skills, Understanding

Answer key

1. A) 5. The order of operations requires solving inside the parentheses first: $6 + 4 = 10$, then $15 - 10 = 5$.
2. $n/5$. A quotient with a variable is written as a fraction, so sharing n apples among 5 friends gives $n/5$ apples each.
3. False. In $3g$, 3 is the coefficient (the number multiplied by the variable) and g is the variable.
4. 19. Substitute $x = 3$ into the expression: $4 \times 3 = 12$, then $12 + 7 = 19$.
5. B) Subtract 8. Subtracting 8 from both sides is the inverse operation of adding 8, and it isolates y .
6. Mia substitutes 17 back into the original equation in place of p : $17 - 5 = 12$. Since both sides equal 12, her solution checks out.