

6th Grade Standard Unit Practice Quiz

Student _____
Class _____
Date _____

1. What is the value of $(2r + \frac{1}{2})^2$ when $r = 0$. Write your answer as a fraction.

2. What is the value of $(4^2 - 8) \div 4 \times 2^3$?

3. Which expression is equivalent to $5x - 50y$?

- A. $5(x - 50y)$
- B. $5(x - 10y)$
- C. $5x(x - 10y)$

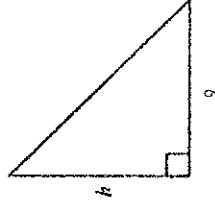
4. Jason owns a party supply store.

- He sells balloons for \$0.30 each and party hats for \$1.00 each.
- Jason buys each balloon for \$0.10 and each party hat for \$0.20.

What expression represents how much money Jason gains from selling n balloons and h party hats?

5. An equilateral triangle has side lengths of $5x + 5$. What is the perimeter of the triangle?

6. The figure below shows a right triangle with a base length of 9 and a height h .



Which expression is equivalent to the area of the triangle?

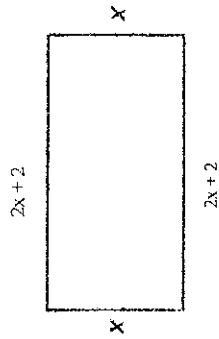
- A. $9h$
 - B. $18h$
 - C. $36h$
 - D. $72h$
7. Brandon exercised x hours 5 times each week for 12 weeks. Which expression represents the total amount of hours Brandon exercised?
- A. $5 + x + 12$
 - B. $5 + 12x$
 - C. $60 + x$
 - D. $60x$

8. Which is the value of $(2 + 5)^2 + 2(5 + 4)$?

9. The length of a vehicle's skid marks, in feet, can be calculated using the expression $0.02s^2$. The speed of the vehicle, in miles per hour, when the brakes are first applied is represented by s . What is the length of the skid marks for a vehicle traveling 25 miles per hour when the brakes are first applied?

10. What is the value of the expression $4m + 2n^2$, if $m = 1$ and $n = 4$?

11. What is the perimeter of the rectangle?



12. Which statement is **true** about the equivalent expressions $2m - 18$ and $2(m-9)$.

- A. They are equivalent by applying the commutative property.
- B. They are equivalent by combining like terms.
- C. They are equivalent because both are in simplest form.
- D. They are equivalent by applying the distributive property.