

Grade 6 - Equivalent Expressions and the Distributive Property - Test

Common Core 6.EE.A.3, 6.EE.A.4 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 45-minute test has 9 questions worth 20 points. It covers the distributive property, factoring, combining like terms, and testing equivalence (Common Core 6.EE.A.3 and 6.EE.A.4). Show your work for full credit.

About this test

- Grade: Grade 6
- Chapter: Equivalent Expressions and the Distributive Property
- Standards: 6.EE.A.3, 6.EE.A.4
- Time: 45 minutes
- Total: 20 points

Question 1 - Distributive property [2 pts]

- Write $7(x+2)$ without parentheses.
- Write $4(3a-5)$ without parentheses.

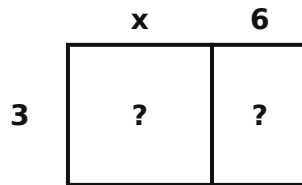
Question 2 - Factor [2 pts]

- Write $18+24y$ as a product of the GCF and a sum.
- Write $9m-6$ as a product of the GCF and a difference.

Question 3 - Combine like terms [2 pts]

Simplify $6x+4+2x-1$.

Question 4 - Area model [2 pts]



Rectangle with height 3.

Write two equivalent expressions for the area of the rectangle shown.

Question 5 - Equivalent or not [2 pts]

Are $4(x+1)$ and $4x+4$ equivalent? Explain using the distributive property or by testing $x=3$.

Question 6 - Spot the error [2 pts]

Expression	Student answer
$5(x + 3)$	$5x + 3$

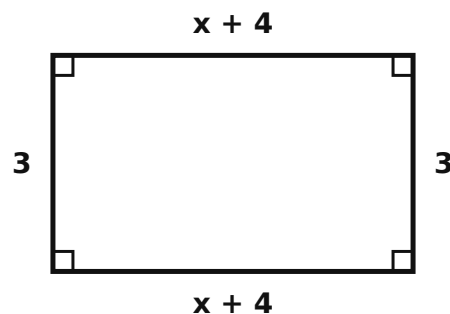
A student's answer.

A student writes $5(x + 3) = 5x + 3$. Explain the mistake and write the correct expression.

Question 7 - Simplify [2 pts]

Simplify $4(x+2)+3x$.

Question 8 - Fencing [3 pts]



A garden.

A garden is a rectangle with length $x + 4$ feet and width 3 feet. Write two equivalent expressions for the perimeter. Then find the perimeter when x is 6.

Question 9 - Multi-step simplify [3 pts]

Simplify $2(5x-3)+4(x+2)$. Check with $x=1$.