

Grade 7 - Equivalent Linear Expressions - Test

Common Core 7.EE.A.1, 7.EE.A.2 · maths-pdf.fr/en/

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

This 45-minute test checks adding, subtracting, factoring, and expanding linear expressions, and rewriting expressions in equivalent forms (Common Core 7.EE.A.1-2). It has 9 questions worth 20 points in all. Show your work, because most questions give partial credit for correct steps.

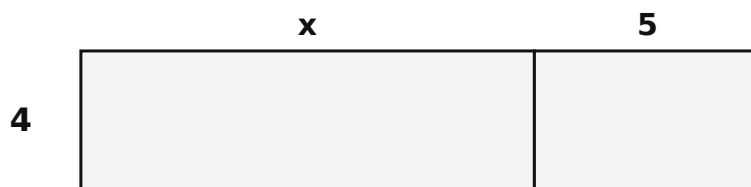
About this test

- Grade: Grade 7
- Chapter: Equivalent Linear Expressions
- Standards: 7.EE.A.1, 7.EE.A.2
- Time: 45 minutes
- Total: 20 points

Question 1 - Combine like terms [2 pts]

Simplify $9x - 4 + 2x + 10$.

Question 2 - Area model [2 pts]



A rectangle model.

Write the area of the whole rectangle as a product, and as a sum of the areas of the two parts.

Question 3 - Distribute [2 pts]

Expand and simplify $-3(2y - 7) + 5$.

Question 4 - Factor [2 pts]

Factor $18x+24$ using the greatest common factor.

Question 5 - Subtract [2 pts]

Simplify $(5x-2)-(3x-8)$.

Question 6 - Rational coefficients [2 pts]

Simplify $\frac{2}{3}x - \frac{1}{6}x$.

Question 7 - Equivalent? [2 pts]

x	$2(x+3)$	$2x+3$	$2x+6$
1			
4			

Evaluate each expression.

Complete the table. Tell which two expressions are equivalent and explain how the table shows it.

Question 8 - Rectangle [3 pts]

A rectangle.

- Write the perimeter as a simplified expression. (1 point)
- Find the perimeter when $w=12$. (1 point)
- A second rectangle has width 5 and the same length, $w+8$. Write its area as a product and expand it. (1 point)

Question 9 - Discount and tax [3 pts]

A jacket costs P dollars. A store takes 20% off, then the buyer pays 5% tax. (a) Write the price after the discount as a single product. (b) Write the final cost as a single product. (c) Find the

final cost when $p = 60$.