

**GRADE 9 & 10 – CONTENT STANDARD #9  
FORMAL ASSESSMENT A**

Name \_\_\_\_\_

Date \_\_\_\_\_

# Transformation

This problem gives you the chance to

- *use the distributive law to rewrite algebraic expressions in equivalent forms*

Rewrite each of the expressions in the left column so that they appear in the form listed in the right column.

What are the values of A, B, C, D, and E in each case?

	Rewrite this function	in this form	
1.	$-2(x + 3(x - 2(x + 1)))$	$A(x + B)$	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">A =</div> <div style="border: 1px solid black; padding: 5px;">B =</div>
2.	$-3(x - 2)^2 + 4$	$C + x(B + Ax)$	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">A =</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">B =</div> <div style="border: 1px solid black; padding: 5px;">C =</div>
3.	$\frac{4x-3}{-x-3} + \frac{8x+4}{2x-3}$	$\frac{Ax + B}{(Cx + D)(Ex + D)}$	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">A =</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">B =</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">C =</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">D =</div> <div style="border: 1px solid black; padding: 5px;">E =</div>

Advanced High School Package 1



© The Regents of the University of California

[Adapted from *Balanced Assessment Advanced High School Assessment Package #1* by Berkeley, Harvard, Michigan State, and Shell Centre © 1999 by the Regents of the University of California, published by Dale Seymour Publications, an imprint of Pearson Learning, a division of Pearson Education, Inc. Used by permission.]

**A.112**

## A Sample Solution

Task

12

Sample solutions are given below: other sequences of solutions are possible if a different order of distribution is used.

1.

$$\begin{aligned} & -2(x + 3(x - 2(x + 1))) \\ & -2x - 6x + 12x + 12 \\ & -8x + 12x + 12 \\ & 4x + 12 \\ & 4(x + 3) \end{aligned} \qquad \begin{array}{l} A = 4 \\ B = 3 \end{array}$$

2.

$$\begin{aligned} & -3(x - 2)^2 + 4 \\ & -3x^2 + 12x - 12 + 4 \\ & -3x^2 + 12x - 8 \\ & -8 + x(12 - 3x) \end{aligned} \qquad \begin{array}{l} A = -3 \\ B = 12 \\ C = -8 \end{array}$$

3.

$$\frac{4x-3}{-x-3} + \frac{8x+4}{2x-3}$$

$$\frac{(4x-3)(2x-3) + (8x+4)(-x-3)}{(-x-3)(2x-3)}$$

$$\frac{8x^2 - 6x - 12x + 9 - 8x^2 - 4x - 24x - 12}{(-x-3)(2x-3)}$$

$$\frac{-46x-3}{(-x-3)(2x-3)}$$

$$\begin{array}{l} A = -46 \\ B = -3 \\ C = -1 \\ D = -3 \\ E = 2 \end{array}$$

## Transformation

[Adapted from *Balanced Assessment Advanced High School Assessment Package #1* by Berkeley, Harvard, Michigan State, and Shell Centre © 1999 by the Regents of the University of California, published by Dale Seymour Publications, an imprint of Pearson Learning, a division of Pearson Education, Inc. Used by permission.]

A.113