Lesson 8: How Many Solutions?

Cool Down: How Does She Know?

Elena began to solve this equation:

$$\frac{12x + 6(4x + 3)}{3} = 2(6x + 4) - 2$$
$$12x + 6(4x + 3) = 3(2(6x + 4) - 2)$$
$$12x + 6(4x + 3) = 6(6x + 4) - 6$$
$$12x + 24x + 18 = 36x + 24 - 6$$

When she got to the last line she stopped and said the equation is true for all values of x. How could Elena tell?

Grade 8 Unit 4
Lesson 8

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