

Algebra 1 8.2

Multiply a polynomial by a monomial

Solve equations involving the product of a monomial and a polynomial

monomial
polynomial
distributive property
like terms

$$\begin{aligned} 3(x+4) &= 3 \cdot x + 3 \cdot 4 \\ &= 3x + 12 \end{aligned}$$

Whiteboards
5 in a row (if time)

$$\begin{aligned} (x+4) + (x+4) + (x+4) \\ 3x + 12 \end{aligned}$$

$$8(11) - 8(4) = 9 \cdot 8 - 16$$

$$4B. \quad d(d+3) - d(d-4) = 9d - 16$$

88-32 72-16

$$\textcircled{d^2} + 3d + \textcircled{-d^2} + 4d = 9d + 16$$

$$S_6 = S_6$$

$$\begin{array}{r} 7d = 9d + 16 \\ -9d \quad -9d \\ \hline -2d = 16 \\ \frac{-2d}{-2} = \frac{16}{-2} \\ d = -8 \end{array}$$

Solve + check

12. $-6(11 - 2c) = 7(-2 - 2c)$

$$\begin{array}{r} -66 + 12c = -14 + -14c \\ +66 + 14c \quad +66 + 14c \end{array}$$

$$\frac{26c}{26} = \frac{52}{26}$$

$$c = 2$$

Solve + check

13. $t(2t + 3) + 20 = 2t(t - 3)$

$$\begin{array}{r} 2t^2 + 3t + 20 = 2t^2 - 6t \\ -2t^2 + 6t \quad \quad -2t^2 + 6t \\ \hline \end{array}$$

$$\begin{array}{r} 9t + 20 = 0 \\ -20 \quad -20 \\ \hline \end{array}$$

$$\frac{9t}{9} = \frac{-20}{9}$$

$$t = \left(\frac{-20}{9} \right)$$

5 in a row (if time)

