

2.4a Mid-Chapter Review

Expanding and collecting like terms

a) $2x(3x-5) - (7x^2-10x) - 2(3x - 4)(2x + 6)$

b) Find the area of a square with a side length of $3y-4$.

Common Factoring

* find the GCF (greatest common factor)

a) $-14b - 79b^2$

b) $2f(6f - 8) + 9(6f - 8)$

c) find the height of a triangle that has an **area** of $12x^2 + 48x$ and a **base length** of $3x$.

Trinomial Factoring $x^2 + bx + c$ where $a=1$ (r and s)
 $r + s = b$ and $rs = c$

a) $a^2 - 10a + 16$

b) $-5m^2 + 15mn - 10n^2$ (Pg 100 # 14c)

c) For what values of k can the polynomial be factored? (Explain)
 $x^2 + kx + 10$

HW Pg. 103 # 1, 3, 7a, 9, 10 & study for Quiz next class

Thursday p.93,94 - 2.2

$$\begin{aligned}
 16. a) & \quad \underline{9xa + 3xb} + \underline{6a + 2b} \\
 & = \underline{3x(3a+b)} + \underline{2(3a+b)} \\
 & = (3a+b)(3x+2)
 \end{aligned}$$

* rearrange terms in (d) before starting.

$$\begin{aligned}
 b) & \quad \underline{10x^2 - 5x} - 6xy + 3y \\
 & = 5x(2x-1) - 3y(2x-1) \\
 & = (2x-1)(5x-3y)
 \end{aligned}$$

p.99-100, 2.3 - Monday

7. Want $x^2 + bx + c$

$$\begin{aligned}
 & (x+5)(x+6) \\
 & = x^2 + 6x + 5x + 30 \\
 & = x^2 + 11x + 30
 \end{aligned}$$

$$\begin{aligned}
 10. \quad n^2 - 2n - 3 & \quad n=4, (4)^2 - 2(4) - 3 \\
 & \quad = 5 \\
 & \quad n=5, (5)^2 - 2(5) - 3 \\
 & \quad = 12 \\
 & \quad n+1 \text{ when } n=4 \rightarrow 4+1=5 \\
 & \quad n-3 \quad \quad \quad \rightarrow 4-3=1
 \end{aligned}$$

$$\begin{array}{cc}
 rs = -3 & r+s \\
 -1, 3 & 2 \\
 \underline{-3, 1} & \underline{-2}
 \end{array}$$

$$x^2 - 16$$

$$x^2 + 0x - 16$$

$$\begin{aligned}
 14. a) & \quad \underline{x^2} + 3\underline{xy} - 10\underline{y^2} \\
 & = x^2 + (3y)(x) - 10y^2 \\
 & = (x - 2y)(x + 5y)
 \end{aligned}$$

$$\begin{array}{cc}
 rs = -10y^2 & r+s = 3y \\
 -5y, 2y & -3y \\
 \underline{-2y, 5y} & \underline{3y}
 \end{array}$$