

p. 175-176 # 10-20

$$18. (p^2 - 2q^2)(p^2 + 2q^2)$$

$$p^4 + 2p^2q^2 - 2p^2q^2 - 4q^4$$

$$\boxed{p^4 - 4q^4}$$

HW Assessment  
12/9

20.  $(2z^2 - 5)^2$

## Multiplying three things

$$\begin{aligned} & \underbrace{2 \cdot 3 \cdot 4} \\ & = 6 \cdot 4 \neq 6 \cdot 8 \\ & = 2 \cdot 12 \end{aligned}$$

$$x^2(x-5)(x+2)$$

FOILing  
first

$$\begin{aligned} & x^2(x^2 + 2x - 5x - 10) \\ & x^2(x^2 - 3x - 10) \end{aligned}$$

$$\boxed{x^4 - 3x^3 - 10x^2}$$

$$x^2(x-5)(x+2)$$

distributing  
first

$$(x^3 - 5x^2)(x+2)$$

$$x^4 + 2x^3 - 5x^3 - 10x^2$$

$$\boxed{x^4 - 3x^3 - 10x^2}$$

$$mn(m-4n)^2$$

$$mn(m-4n)(m-4n)$$

$$mn(m^2 - 4mn - 4mn + 16n^2)$$

$$mn(m^2 - 8mn + 16n^2)$$

$$m^3n - 8m^2n^2 + 16mn^3$$

your turn!

$$x^2y(x-4)^2$$

$$x^2y(x-4)(x-4)$$

$$x^2 - 4x - 4x + 16$$

$$x^2y(x^2 - 8x + 16)$$

$$x^4y - 8x^3y + 16x^2y$$

multiplying trinomials

$$(4 - x^2)(x^2 - 3x + 5)$$

$$4x^2 - 12x + 20 - x^4 + 3x^3 - 5x^2$$

$$-x^4 + 3x^3 - x^2 - 12x + 20$$

$$(4x^2 - 3xy + 5y^2)(-x + 1)$$

$$-4x^3 + 4x^2 + 3x^2y - 3xy - 5xy^2 + 5y^2$$

$$-4x^3 + 3x^2y - 5xy^2 + 4x^2 - 3xy + 5y^2$$

Your turn!

$$(2-x)(4x^2-2x+3)$$