

**Warm up:**

Factor.

$$1) 50x^3 - 40x^2 + 8x$$
$$2x(25x^2 - 20x + 4)$$
$$2x(5x - 2)^2$$

$$2) 54a^3b - 6ab^5$$
$$6ab(9a^2 - b^4)$$
$$6ab(3a + b^2)(3a - b^2)$$



$$\frac{(-2x^5)^4}{(x^3)^5} = \frac{16x^{20}}{x^{15}}$$

$$16x^5$$

$$\frac{5x^4 - 20x^2 + 10x}{5x}$$

 $5x$ 

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

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

$$15x^2 + 8x - 16$$

$$(6x - 2)^2$$

$$(6x - 2)(6x - 2)$$

$$36x^2 - 24x + 4$$

$$25x^2 - 81$$
$$(5x + 9)(5x - 9)$$

$$4x^2 - 32x + 64$$

$$(2x - 8)^2$$

$$4(x^2 - 8x + 16)$$

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

$$(2x - 8)(2x - 8)$$

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

$$2(x - 4)(2)(x - 4)$$



$$8x^3 - 32x$$

$$8x(x^2 - 4)$$

$$8x(x+2)(x-2)$$

$$25x^2 - 20x + 4$$

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

$$2x^5 - 162x$$

$$2x(x^4 - 81)$$

$$2x(x^2 + 9)(x^2 - 9)$$

$$2x(x^2 + 9)(x + 3)(x - 3)$$

$$3a^4 - 30a^3 + 75a^2$$

$$(4c - 5)^2$$

$$\frac{16x^{12}y^7 - 4x^{10}y^5 + 44x^7y^4}{-4x^2y}$$

$$(3x - 2)(7x + 4)$$

$$7a^2b^3 + 14ab^4$$



$$25b^4 - 110b^2 + 121$$

$$16n^8 - 81c^{12}$$

$$32m^2n - 50n^3$$

$$9y^2 + 42y + 49$$

$$x^4 - y^4$$

$$64x^3 + 320x^2 + 400x$$

$$5x^4y^5 - 5y^5$$

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



