

Unit 5 Review

- Section 8.1-8.3, 10.1-10.3

Pg 497 # 1-19 odd

$$\textcircled{1} x^3 \cdot x^4 = \boxed{x^7} \quad \textcircled{9} (mn)^2 \cdot n^4$$
$$m^2 \cdot n^2 \cdot n^4 = \boxed{m^2 n^6}$$

$$\textcircled{3} b^2 \cdot b^{-5} = \frac{b^2}{b^5} = \boxed{\frac{1}{b^3}}$$

$$\textcircled{5} (x^3)^7 = \boxed{x^{21}}$$

$$\textcircled{11} \left(\frac{x^3}{xy^4} \right) \left(\frac{x}{y} \right)^5$$

$$\textcircled{7} \frac{n^3}{n^5} = \boxed{\frac{1}{n^2}}$$

$$\frac{x^3}{xy^4} \cdot \frac{x^5}{y^5} = \frac{x^8}{xy^9} = \boxed{\frac{x^7}{y^9}}$$

$$(13) \quad 5^4 \cdot 5^{-1} = \frac{5^4}{5^1} = 5^3 = \boxed{125} \quad (19) \quad (5 \cdot 4)^{-3} \cdot 5^{-2} =$$

$$(15) \quad (425^0)^0 = \boxed{1}$$

$$(17) \quad \frac{3^1 \cdot 3^5}{3^4} = \frac{3^6}{3^4} = 3^2 = \boxed{9}$$

$$20^{-3} \cdot 5^{-2} = \frac{1}{20^3 \cdot 5^2} = \frac{1}{8000 \cdot 25}$$

$$\boxed{\frac{1}{200,000}}$$

pg 634 #2-14 even

$$\textcircled{2} (x^2 + 3x - 1) - (4x^2 - 5x + 6) =$$

$$x^2 + 3x - 1 - 4x^2 + 5x - 6$$

$$\boxed{-3x^2 + 8x - 7}$$

$$\textcircled{4} (4\cancel{x}^3 + \cancel{x}^2 - 1) + (2 - x - \cancel{x}^2) =$$

$$\boxed{4x^3 - x + 1}$$

$$\textcircled{6} \quad 4x^3(-x^2+2x-7) =$$

$$\boxed{-4x^5 + 8x^4 - 28x^3}$$

$$\textcircled{8} \quad (7x-1)(5x+2) =$$

$$35x^2 + 14x - 5x - 2$$

$$\boxed{35x^2 + 9x - 2}$$

$$\textcircled{10} \quad (4x^2+9x)(-x^2-3) =$$

$$-4x^4 - 12x^2 - 9x^3 - 27x$$

$$\boxed{-4x^4 - 9x^3 - 12x^2 - 27x}$$

$$(15) (5x-2)(5x+2)$$

$$25x^2 + \cancel{10x} - \cancel{10x} - 4$$

$$\boxed{25x^2 - 4}$$

$$(14) (7m-6)^2$$

$$(7m-6)(7m-6)$$

$$49m^2 - 42m - 42m + 36$$

$$\boxed{49m^2 - 84m + 36}$$