MAT 090 - Homework - Chapter 6.2

Name: _____ Class: _____ Date: _____

1. Complete the table below for polynomials only. If the function is not a polynomial state why.

Question	**Polynomial (y/n)**	**Degree**	**Descending Order**
$f(x) = -4x^2 - x^4 - 3x^3$			
$P(x) = 4x^7 - \sqrt{x} + 9$			
$T(x) = 14 - 5a^3 - a^2$			
$-2x^3 - \frac{1}{x^2} - 4x + 8$			
$\frac{3}{5}x - 5x^2 + \frac{1}{2}x^4$			

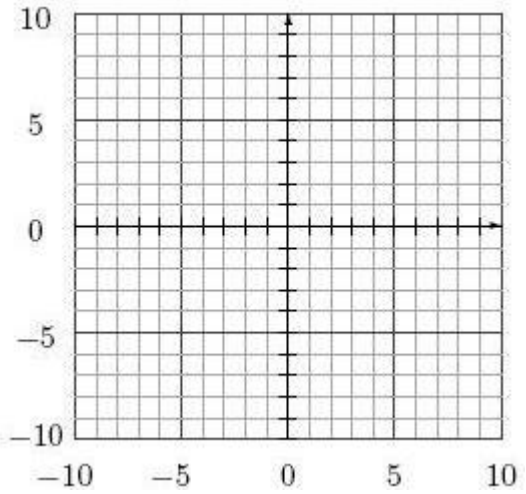
2. Given: $P(x) = 3x^2 + 2x - 8$ Evaluate for $P(3)$ and $P(-3)$ 2. _____

3. Given: $P(x) = -x^3 + 2x^2 - 3x + 4$ Evaluate for $P(2)$ and $P(-2)$ 3. _____

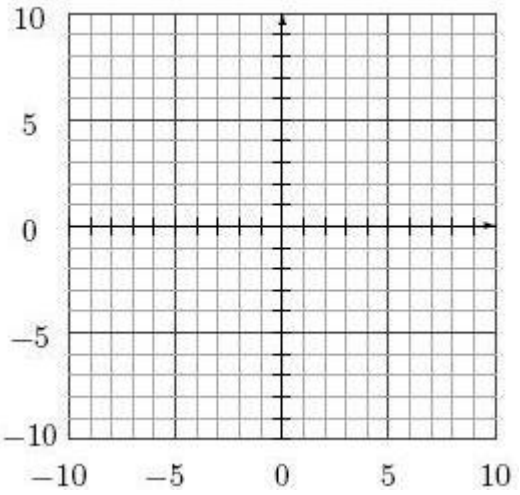
4. Given: $P(x) = x^5 - 3x^3 - 5$ Evaluate for $P(1)$ and $P(-1)$ 4. _____

5. Given: $P(x) = -2x^3 - x^2 - x$ Evaluate for $P(2)$ and $P(-2)$ 5. _____

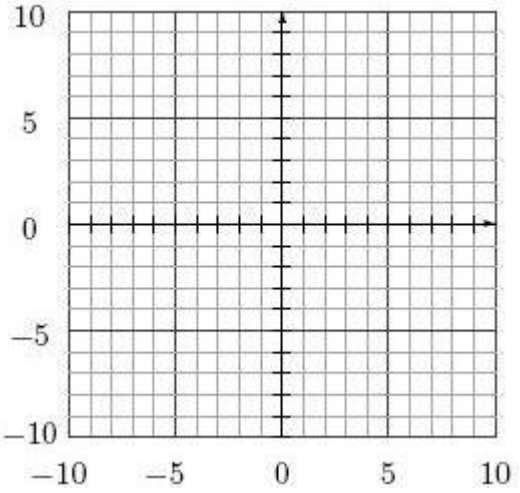
6. $f(x) = x^3 + 2$ (Solve for x = -2,-1,0,1,2)



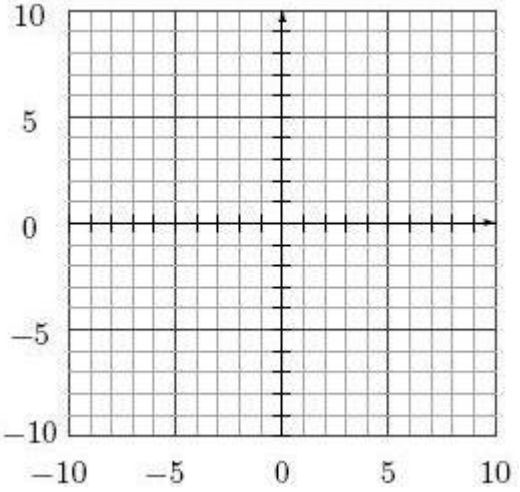
7. $G(x) = x^2 - x - 2$ (Solve for x = -3,-2,0,1,3,4)



8. $H(x) = -x^2 + 2x - 2$ (Solve for x = -2,-1,0,1,2)



9. $P(x) = \left(\frac{x}{2}\right)^4 - 8$ (Solve for x = -3,-2,0,2,3)



10. $(3x^2 - 2x + 7) + (-3x^2 + 2x - 12)$ 10. _____

11. $(2x^2 + 3x - 7) - (5x^2 - 8x - 1)$ 11. _____

12. $(-2y^2 - 4y - 12) - (-5y^2 + 5y)$ 12. _____

13. $-(3a^2 - 4a + 5) - (-3a^2 + 4a + 7)$ 13. _____

14. Subtract $3x^3 - 4x + 5$ from $5x^3 - 2x + 5$ 14. _____

15. Subtract $2y^3 - 4y + 8$ from $-3y^4 + 4y + 9$ 15. _____

16. Given $F(x) = 3x^2 - 2x + 5$ and $G(x) = -2x^2 - 4x + 5$
Find $H(x) = F(x) - G(x)$ 16. _____

17. Given $F(x) = -3x^4 + 2x^3 + 3x - 7$ and $G(x) = 3x^4 - 8x^3 - 7x + 7$
Find $H(x) = F(x) - G(x)$ 17. _____

18. Given $F(x) = -3x^2 + 4x - 8$ and $G(x) = -3x^2 - 4x + 2$
Find $H(x) = F(x) + G(x)$ 18. _____

19. Given $F(x) = 3a^2b^2 - 4a^3b + 3a^3b^2$ and $G(x) = -5a^2b^2 + 7a^3b^2 - 5a^3b$
Find $H(x) = F(x) - G(x)$ 19. _____