Trig Pre-Calc
Quiz 1.2 Review plus Fcn Fams Graphing

Find the domain. Show work.

1. $f(x) = \sqrt{16 - x}$

2. $f(x) = \frac{x}{x - 7}$

3. $f(x) = \frac{6}{x^2}$

Find the range. Show work or a sketch.

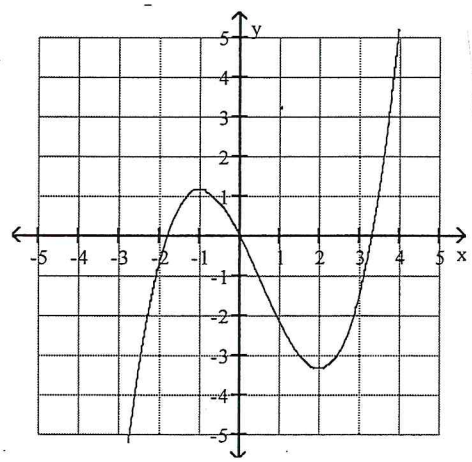
4. $f(x) = (x + 1)^2 - 1$

5. $f(x) = 7x - 11$

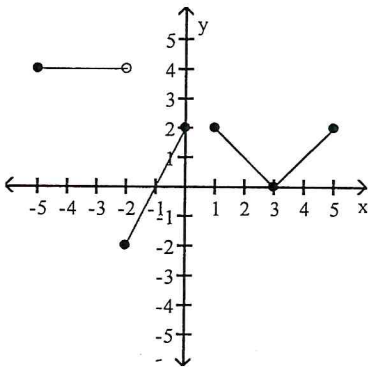
6. $f(x) = \sqrt{9 + x}$

Use the graphs to identify increasing, decreasing or constant intervals.

7.



8.



Using a calculator, identify any extrema using the proper notation. Include a sketch and window.

9. $f(x) = \frac{1}{3}x^3 + x^2 - 3x.$

10. $f(x) = x\sqrt{x+2}$

Determine if the function is bounded above, bounded below, bounded, or unbounded.

11. $y = 0$

12. $y = \sqrt{7 - x^2}$

13. $y = 2^x + 5$

Determine algebraically if the function is odd, even, or neither.

14. $f(x) = -0.21x^2 + |x| + 8$

15. $f(x) = x + \frac{3}{x}$

16. $f(x) = 7x^4 + 7x + 5$

Determine all asymptotes. Show work. Label which are which.

17. $h(x) = \frac{(x - 3)(x + 3)}{x^2 - 1}$

18. $f(x) = \frac{x - 9}{x^2 + 8x}$

19. $g(x) = \frac{x^2 + 8x - 9}{x - 9}$

Graph each using transformations. Show all tables. Graph the final table. Give D & R.

20. $y = \frac{-2}{x+3} + 1$

21. $y = \frac{1}{2}\sqrt{-(x - 2)} + 4$

22. $y = \left|\frac{1}{3}(x + 4)\right| - 2$