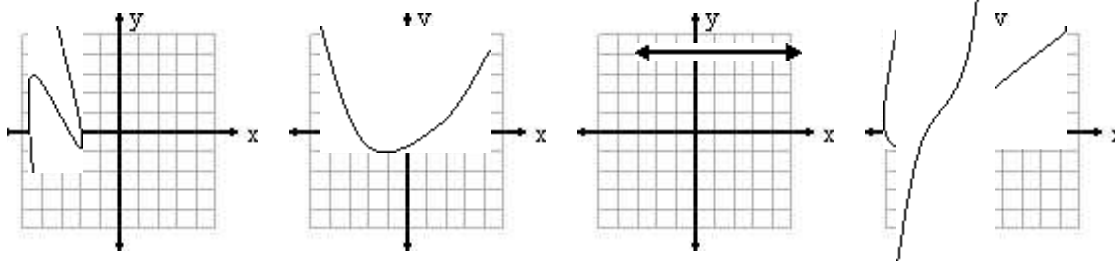


Algebra Chapter 13

1. Circle the graphs below that are functions.



2. Would the set of numbers $\{ (2, 3), (4, 3), (6, 3) \}$ represent a function? Why or why not?

Let $f(x) = 3x - 4$ and $g(x) = x^2$

3. $f(-2) = \underline{\hspace{2cm}}$

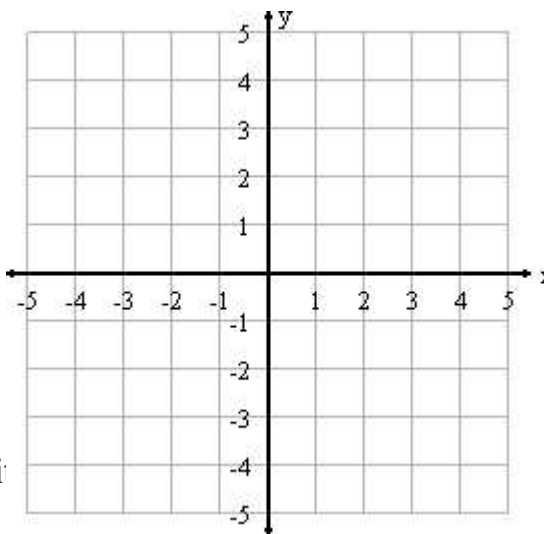
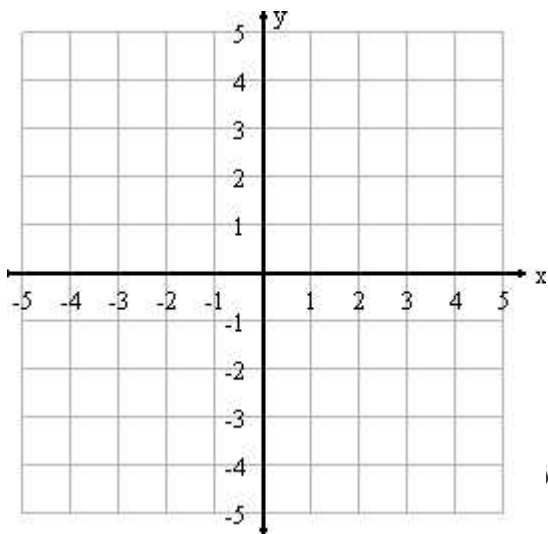
4. $g(-3) = \underline{\hspace{2cm}}$

5. $g(f(3)) = \underline{\hspace{2cm}}$

6. $f(3) - g(3) = \underline{\hspace{2cm}}$

7. Graph $y = |x - 3|$

8. Graph $y = |x| - 3$



9. $f(x) = \frac{3x}{x-5}$ Domain = $\underline{\hspace{2cm}}$

10. $f(x) = \sqrt{x-3}$ Domain = _____

11. $f(x) = \frac{3}{2x+7}$ Domain = _____

12. $f(x) = \sqrt{2x-5}$ Domain = _____

13. If I flip a fair coin three times, here is a chart of the possible outcomes.

Possibility	Toss 1	Toss 2	Toss 3
1	Heads	Heads	Heads
2	Heads	Heads	Tails
3	Heads	Tails	Heads
4	Heads	Tails	Tails
5	Tails	Tails	Tails
6	Tails	Tails	Heads
7	Tails	Heads	Tails
8	Tails	Heads	Heads

a.) What is the probability the coin will land on heads all three times? _____

b.) What is the probability the coin will land on heads twice and tails once? _____

c.) What is the probability the coin will land on heads at least twice? _____

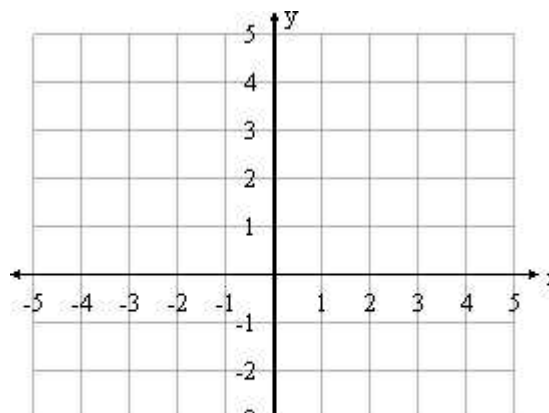
14. Before you try to find the tangent of an angle, should your calculator's mode be set to radians or degrees?

15. Which equation would best describe the graph to the right?

a.) $y = x^2 - 3$

b.) $y = x^3 - 5$

c.) $y = x^3 + 2$

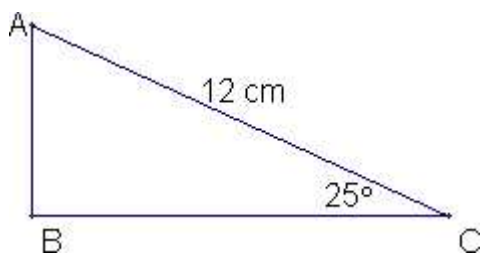


d.) $y = x^3 - 2$

16. Without using a calculator, determine which is largest.

 $\tan 30$ $\tan 5$ $\tan 89$ $\tan 1$

17. At what degree (between 0 and 90) are the sine and cosine equal? _____



18. What is the length of
- \overline{BC}
- ? _____

19. What is the length of
- \overline{AB}
- ? _____