

Final Review Mixed Review #1

1. Evaluate each of the following. Try not to use a calculator.

a. $5^0 \cdot 5^2$

b. $5^0 + 5^2$

c. $5^0 \div 5^2$

d. $5^0 + 5^{-2}$

2. Solve for x : $\frac{3}{4}x + 24 = 6x - \frac{9}{4}$

3. Can the three angles given be the angles of a triangle?

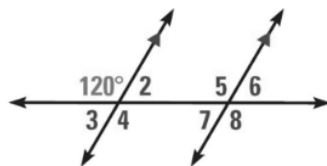
a. $30^\circ, 60^\circ, 90^\circ$

b. $170^\circ, 110^\circ, 80^\circ$

c. $90^\circ, 45^\circ, 45^\circ$

d. $95^\circ, 57^\circ, 28^\circ$

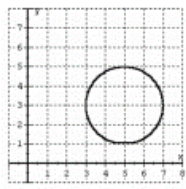
4. Find each numbered angle in the given picture. The lines are parallel cut by a transversal.



5. Is the relation given by the table a function? Explain why or why not.

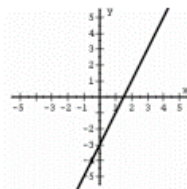
x	y
-3	6
-2	0
-1	-4
0	-6
1	-6
2	-4
3	0
4	6

6. Which graph is a function?



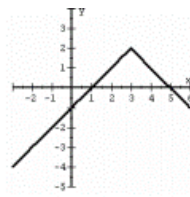
$$(x-5)^2 + (y-3)^2 = 4$$

Function?



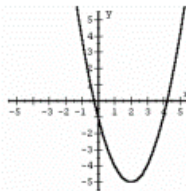
$$y = 2x - 3$$

Function?



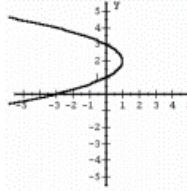
$$y = -|x-3| + 2$$

Function?



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

Function?

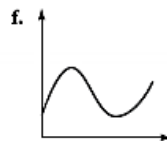
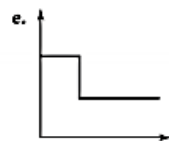
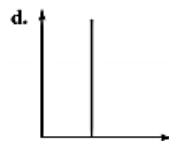
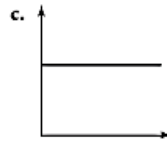
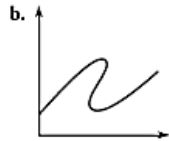
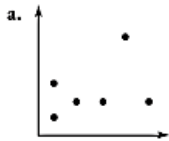


$$x = -(y-2)^2 + 1$$

Function?

7.

Find whether each graph represents a function.



8. What is the **slope** and **y-intercept** of the linear equation $10y - 20x = 40$?

9. A line has the equation $y = \frac{1}{2}x - 4$. Is the point $(10, 1)$ on this line? **Explain.**

10. Write the equation of a line that will have a slope of 3 and pass through the point $(-2, 3)$.