

**Unit 5:
Review**

1. Of the following points, which is in the 3rd quadrant?

(4, -9), (-4, -9), (4, 9), (-4, 9)

2. Plot the point (8, 2) on a coordinate plane and show its new position after being translated 4 units down.

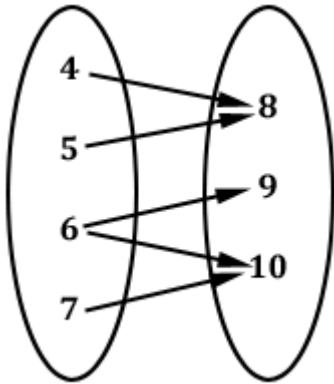
3. Plot the point (-6, 3) on a coordinate plane and show its new position after being translated 2 units to the right.

4. Plot the point (2, -5) on a coordinate plane and show its new position after being reflected across the x-axis.

5. Plot the point (2, -5) on a coordinate plane and show its new position after being reflected across the y-axis.

6. If $g(x) = 2x^2 + x + 1$, find $g(-3)$

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7. Find the domain and range of the relation represented by this mapping. Is it a function? Why?



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8. Find the domain and range of the relation represented by this table. Is it a function? Why?

x	y
5	-2
6	-2
7	17.5
2	0

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9. Find the domain and range of the relation represented by this set of ordered pairs. Is it a function? Why?

{ (3, 7), (6, -2), (11, 9), (6, -7) }

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10. If the function $f(x) = 3x + 9$ has the domain, $\{-1, 0, 3, 7\}$, what is its range?

11. If $f(x) = -2x - 11$ and $g(x) = 7 - x$, find the value of $3f(8) - 2g(6)$.

12. Bob has already sold \$200 worth of fruit from his fruit stand. If he continues selling at the rate of \$80 per hour, write a function that will predict his total up to any later time.

13. After how much more time will Bob have sold \$420 worth of fruit?

14. What will be Bob's total sales after another 8 hours?

15. Just as it comes out of the oven, a hot pie is placed in a refrigerator. Sketch a graph of the temperature of the pie over the next several hours.

Which is the dependent variable?

Which is the independent variable?

The _____ is a function of _____
and the functional notation is _____