#### Algebra 1 © 2022 Kuta Software LLC. Allrights reserved. Lesson 2.5 Assignment

- 1) A bubble gum machine in a grocery store is filled with 500 candies. Each time a person puts in money, 10 candies come out. Write a function *C* that represents the amount of candy after *m* times money has been inserted into the machine.
- 2) Find C(6). Explain what your solution means.
- 3) Does finding C(-4) make sense in this situation? Why or why not?
- 4) A radioactive element has been uncovered. Scientists know that it decays at a rate of 5% each year. The scientists have found a 40 gram sample. It has been active for some time. If time zero is when the scientists find the sample, write a function that models (*G*) the number of grams of the element after *t* years.
- 5) Find G(5). Explain what your solution means.
- 6) Does finding G(-10) make sense in this situation? Why or Why not?

### Write an equation for each graph.



### Write the slope-intercept form of the equation of each line.



11) Let f(x) = 10x + 100 and  $g(x) = 10^x$ . As the input values (x) become larger, which function produces a larger output? How do you know?

# Write an equation for each graph.



# Write the slope-intercept form of the equation of each line.

