**Choose the best graph for the scenario.**

1. A person walks leisurely, stops, then continues walking.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. A person jogs, then runs, and then jogs again.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Sketch a graph for each situation.**

3. Julie reads 2 books a month for 5 months. 4. A ball is dropped from a second story window and bounces to a stop on the patio below.

5. A girl was walking home at a steady pace. Then she stopped to talk to a friend. After her friend leaves, she jogs the rest of the way home.

**Write a scenario for each graph.** (Don’t forget to assign units to #7)

6. 7.

8. b.) Identify domain & range

a.) Express as a mapping diagram.

 c.) Explain if it’s a function.

9. a.) Identify domain & range b.) Explain if it’s a function.

**Evaluate.**

10. $f\left(x\right)= -3x+4 when x=-2$ 11. $g\left(x\right)=2x^{2} when x= -3$

12. Bowling costs $3 per game plus $2.50 for shoe rental. **What is the independent and dependent variables? Write a function rule.**

13. An engraver charges a $10 fee plus $6 per line of engraving. **Write a function rule and find a reasonable domain and range for up to 8 lines of engraving.**

**Determine whether the sequence is arithmetic. If so, identify the common difference and give the next three numbers.**

14. 11, 6, 1, -4,… 15. -4, -3, -1, 2,… 16. 7, 21, 30, 45,…

**Find the indicated term in the sequence.**

17. 32nd term: 18, 11, 4, -3,… 18. 24th term: a1 = 4, d = 6

**The table shows possible recommendations for the number of hours of sleep that children should get every night.**



19. Create a scatterplot. Don’t forget labels & a title!

20. Describe the correlation

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

21. Predict how many hours of sleep a 16-year-

old should get

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Graph each function with the given domain using a table.**

22. $y=-3x+4 D: \left\{-2, -1, 0, 1, 2\right\}$ 23. $y=\left|x-1\right| D: \left\{-3, 0, 1, 3, 5\right\}$



**Graph each function using a table.**

24. $y=x-5$ 25. $y=x^{2}-5$

