

Alg 1 Week 8 Block Warm Up

Skill 2: Proportional Reasoning

Two out of 5 students in the 9th grade have braces. If there are 325 students in the 9th grade, how many have braces?

Skill 3: Solve and Graph Compound Inequalities on a Number Line

$$2 < 5b - 6 \leq 9$$



Skill 4: Solve and Graph Absolute Value Inequalities and Equations

$$|4n + 3| - 5 = 18$$

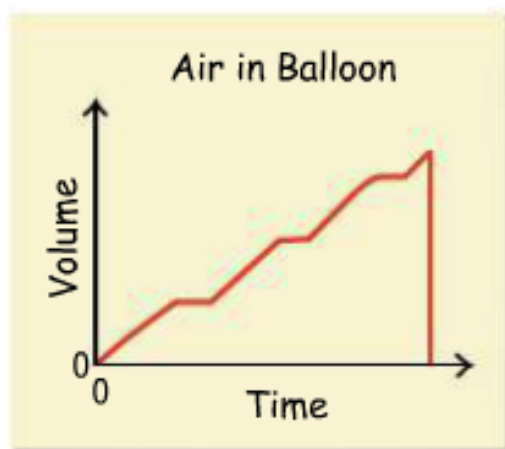


Notes/examples for 4-1: Using Graphs to Relate Two Quantities

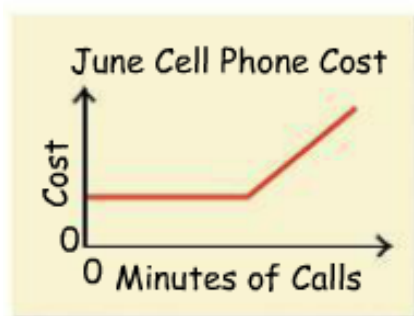
1. The graph shows the volume of air in a balloon as you blow it up, until it pops.

a. What are the variables?

b. Describe how the variables are related at various points on the graph.



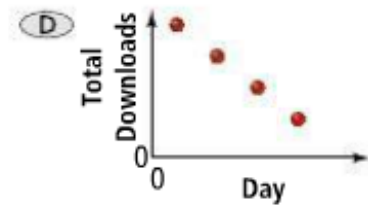
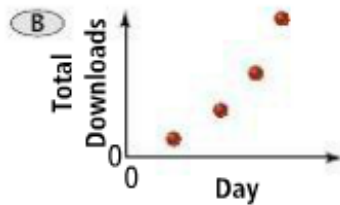
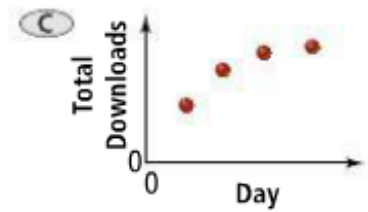
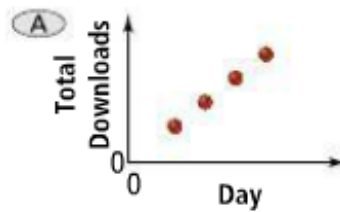
Got It? Repeat for this graph:



2. A band allowed fans to download its new video from its web site. The table shows the total number of downloads after 1, 2, 3, and 4 days. Which graph could represent the data shown in the table?

Video Downloads

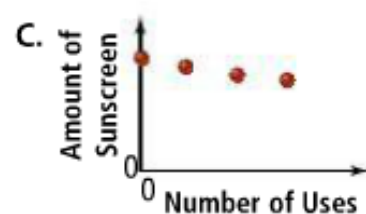
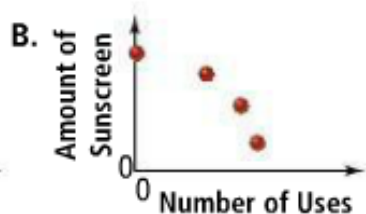
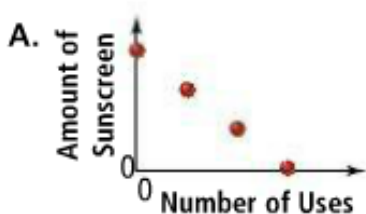
Day	Total Downloads
1	346
2	1011
3	3455
4	10,426



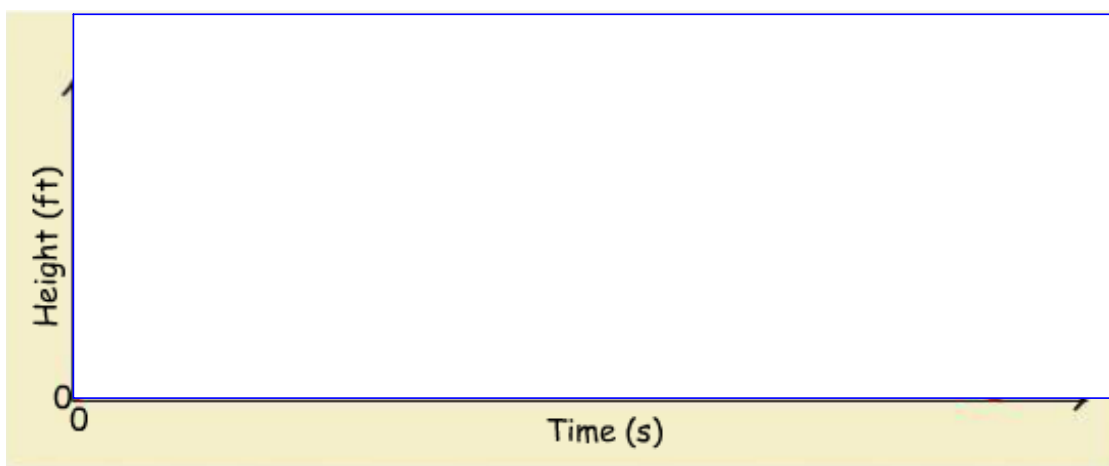
Got It? Try this one:

The table shows the amount of sunscreen left in a can based on the number of times the sunscreen has been used. Which graph could represent the data shown in the table?

Sunscreen				
Number of Uses	0	1	2	3
Amount of Sunscreen (oz)	5	4.8	4.6	4.4



3. A model rocket rises quickly and then slows to a stop as its fuel burns out. It begins to fall quickly until the parachute opens, after which it falls slowly back to Earth. Sketch a graph that could represent the height of the rocket during its flight, and label each section of the graph.



4-1

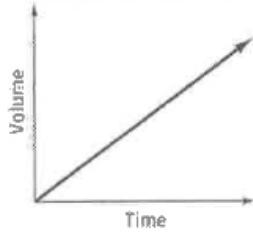
Practice

Form G

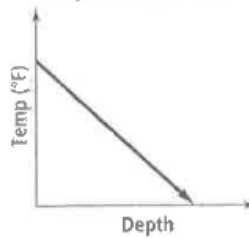
Using Graphs to Relate Two Quantities

What are the variables in each graph? Describe how the variables are related at various points on the graph.

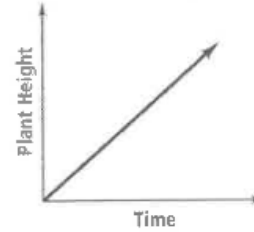
1. Volume of Pool Water



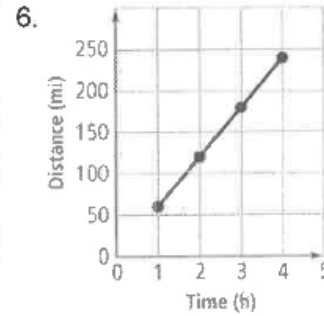
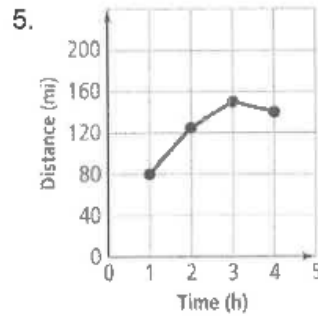
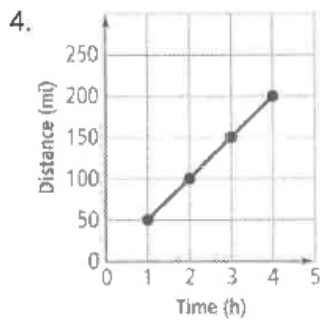
2. Temperature of Water



3. Plant Height



Match each graph with its related table. Explain your answers.



A.

Time (h)	Distance (mi)
1	60
2	120
3	180
4	240

B.

Time (h)	Distance (mi)
1	80
2	125
3	150
4	140

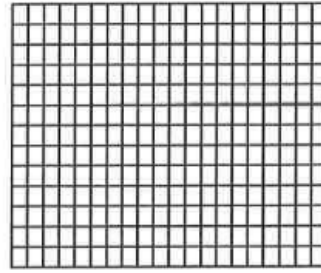
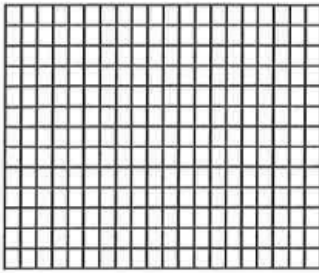
C.

Time (h)	Distance (mi)
1	50
2	100
3	150
4	200

HWK Block 200

Sketch a graph to represent the situation. Label each section.

7. You buy two shirts. The third one is free. 8. You warm up for gym class, play basketball, and then cool down.



HW: P. 231 (1,2,4,7,12-15,17,19)

Get Ready!

Put work and answers on Notebook paper

Lesson 1-2

Evaluating Expressions

Evaluate each expression for the given value(s) of the variable(s).

1. $3x - 2y$; $x = -1, y = 2$

2. $-w^2 + 3w$; $w = -3$

3. $\frac{3+k}{k}$; $k = 3$

4. $h - (h^2 - 1) \div 2$; $h = -1$

Lesson 1-9

Using Tables, Equations, and Graphs

Use a table, an equation, and a graph to represent each relationship.

5. Bob is 9 years older than his dog.

6. Sue swims 1.5 laps per minute.

7. Each carton of eggs costs \$3.

Review,
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Graphing in the Coordinate Plane

Graph the ordered pairs in the same coordinate plane.

8. $(3, -3)$

9. $(0, -5)$

10. $(-2, 2)$

11. $(-2, 0)$

Lesson 2-2

Solving Two-Step Equations

Solve each equation. Check your answer.

12. $5x + 3 = -12$

13. $\frac{n}{6} - 1 = 10$

14. $7 = \frac{x+8}{2}$

15. $\frac{x-1}{4} = \frac{3}{4}$

Lesson 3-7

Solving Absolute Value Equations

Solve each equation. If there is no solution, write *no solution*.

16. $|r + 2| = 2$

17. $-3|d - 5| = -6$

18. $-3.2 = |8p|$

19. $5|2x - 7| = 20$