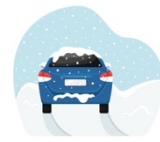




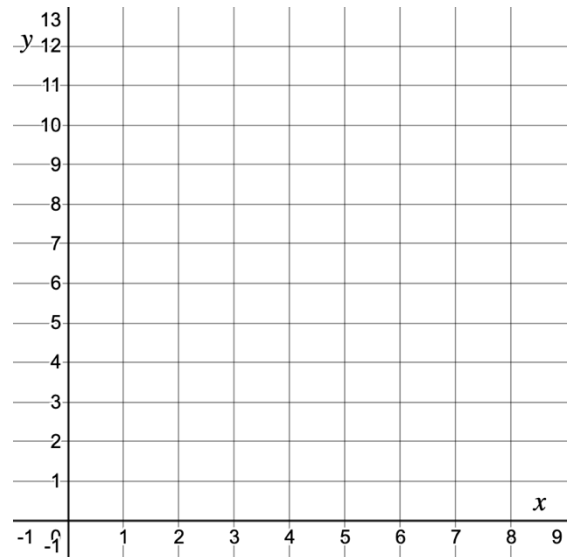
How Much Snow is on the Ground?



A big snowstorm is passing through Baltimore. The height of snow on Jasper's driveway can be modeled by the equation $y = 5 + \frac{2}{3}x$, where y is the height in inches, and x is the hours after midnight.

1. How many inches of snow are on the ground at midnight? How do you know?
2. How many inches of snow are on the driveway at 3 AM?
3. Graph the relationship between the height of snow and the time on the xy plane.

4. What is the slope of the line? What does this have to do with the snow on Jasper's driveway?
5. Where does this line cross the y -axis? What information does this tell you about the snow on Jasper's driveway?



6. How many inches of snow are there on the ground at 4 AM?
7. If there are 12 inches or more of snow on the ground at 6 AM, school will get canceled. Should Jasper turn off his alarm? Explain.
8. At what time will there be exactly 8 inches of snow on the ground?

Lesson 2.5 – Graphing Lines

QuickNotes

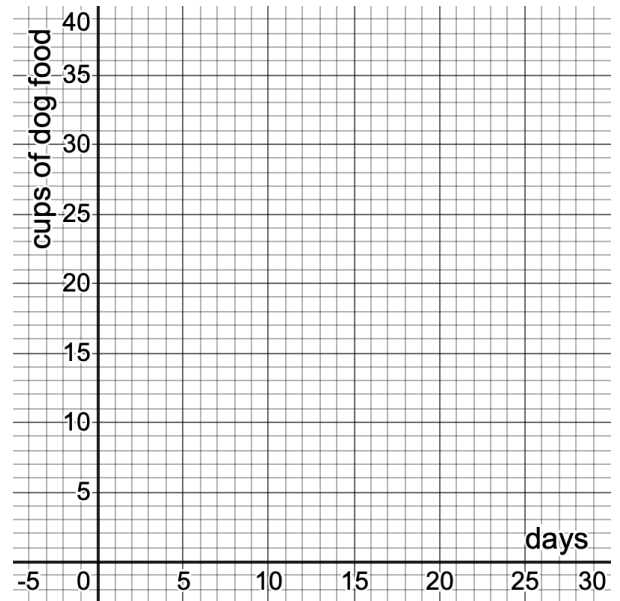
Check Your Understanding

1. Imani buys dog food in a 12-pound bag, amounting to 38 cups of food. Each day she feeds her dog $1\frac{1}{2}$ cups of dog food.

a. Graph the relationship between the number of cups of dog food remaining in the bag, and the days since opening a new bag of dog food.

b. What is the y-intercept of this line? What does this mean in the context of this problem?

c. What is the slope of this line? What does this mean in the context of this problem?



d. What is the x-intercept of this line? What does this mean in the context of this problem?

2. Write the equation of the line shown.

