

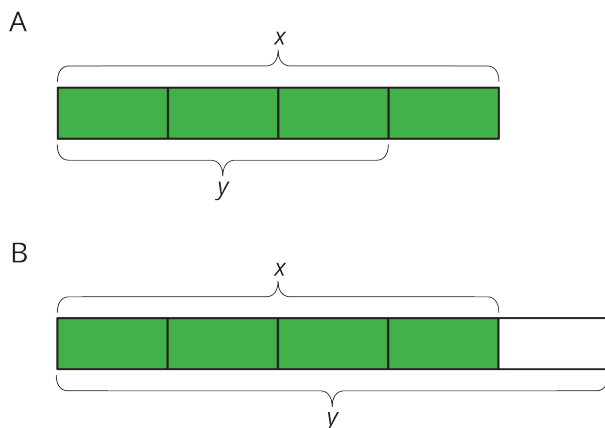
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## Unit 4, Lesson 6: Increasing and Decreasing

1. For each diagram, decide if  $y$  is an increase or a decrease relative to  $x$ . Then determine the percent increase or decrease.



2. Draw diagrams to represent the following situations.

a. The amount of flour that the bakery used this month was a 40% increase relative to last month.

b. The amount of milk that the bakery used this month was a 75% decrease relative to last month.

3. Write each percent increase or decrease as a percentage of the initial amount. The first one is done for you.

a. This year, there was 40% more snow than last year.

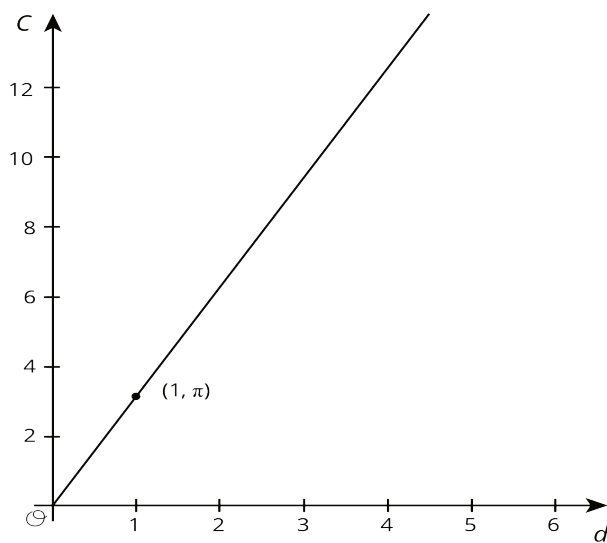
*The amount of snow this year is 140% of the amount of snow last year.*

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- b. This year, there were 25% fewer sunny days than last year.
- c. Compared to last month, there was a 50% increase in the number of houses sold this month.
- d. The runner's time to complete the marathon was a 10% less than the time to complete the last marathon.
4. The graph shows the relationship between the diameter and the circumference of a circle with the point  $(1, \pi)$  shown. Find 3 more points that are on the line.



(from Unit 3, Lesson 3)

5. Priya bought  $x$  grams of flour. Clare bought  $\frac{3}{8}$  more than that. Select **all** equations that represent the relationship between the amount of flour that Priya bought,  $x$ , and the amount of flour that Clare bought,  $y$ .
- A.  $y = \frac{3}{8}x$
- B.  $y = \frac{5}{8}x$
- C.  $y = x + \frac{3}{8}x$
- D.  $y = x - \frac{3}{8}x$
- E.  $y = \frac{11}{8}x$

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(from Unit 4, Lesson 4)