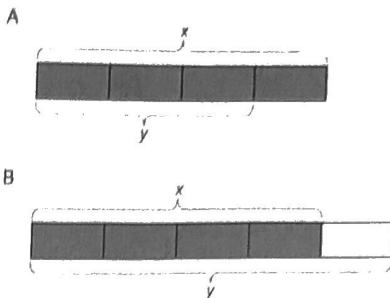


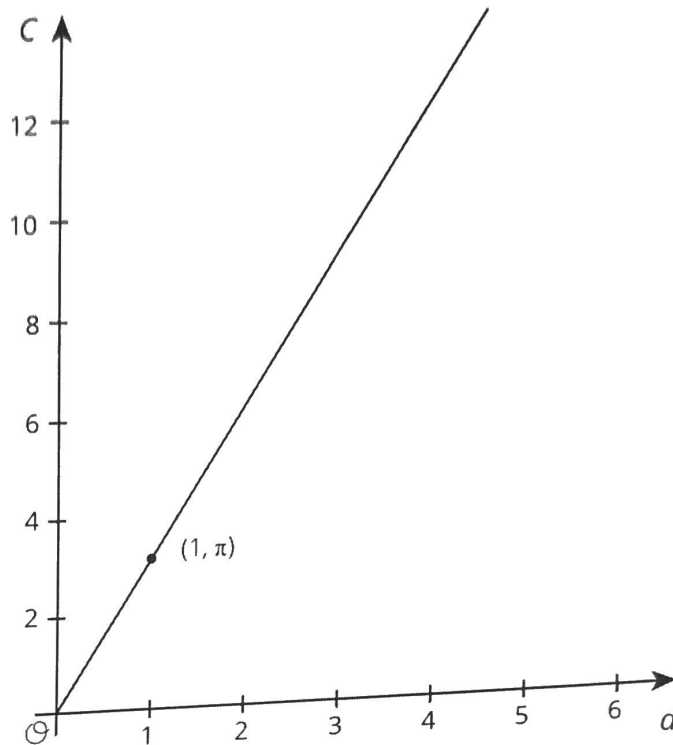
## Lesson 6: Practice Problems

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.
- The amount of flour that the bakery used this month was a 40% increase relative to last month.
  - 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.
- 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.*
  - This year, there were 25% fewer sunny days than last year.
  - Compared to last month, there was a 50% increase in the number of houses sold this month.
  - 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.



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.  $y = \frac{11}{8}x$