

# EQUIVALENT RATIOS and GRAPHS

Nivii collects 12 new coins each year. Use equivalent ratios to graph the growth of his coin collection over time.

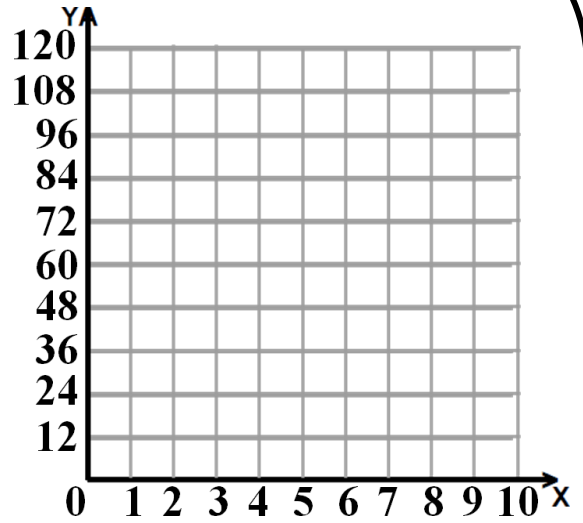
- Step 1** Write an ordered pair for the first year.  
 Let the  $x$ -coordinate represent the number of years: 1.  
 Let the  $y$ -coordinate represent the number of coins: 12.

**Step 2** Make a table of equivalent ratios.

**Step 3** Write ordered pairs for the values in the ratio table. \_\_\_\_\_  
 \_\_\_\_\_

**Step 4** Give the graph a title; label the two axes.

**Step 5** Graph the ordered pairs as points.



<b>Coins</b>	<b>12</b>				
<b>Year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

The point (1, 12) represents the year Nivii started his collection. It shows that he had 12 coins after 1 year. Using the graph, at this rate, if Nivii continues to collect coins, how many will he have after 8 years? \_\_\_\_\_

**Use the graph at the right for the following.**

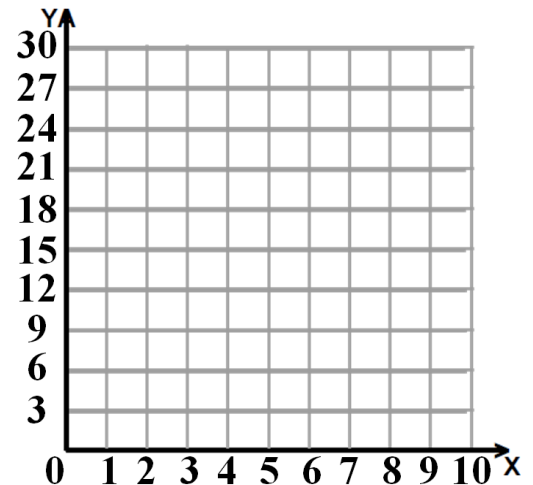
1. Edeena walks at a rate of 3 miles in 1 hour.  
 Write an ordered pair. Let the  $y$ -coordinate represent miles and the  $x$ -coordinate represent hours. \_\_\_\_\_

2. Complete the table of equivalent ratios.

<b>Miles</b>	<b>3</b>			<b>12</b>	
<b>Hours</b>			<b>3</b>		<b>5</b>

3. Write ordered pairs for the values on the table.  
 \_\_\_\_\_

4. Give the graph a title and labels. Graph the ordered pairs.  
 5. What does the point (2, 6) represent on the graph?  
 \_\_\_\_\_



Brittney and Tiffny make bracelets with 8 charms on each one. Use this information for 6-10.

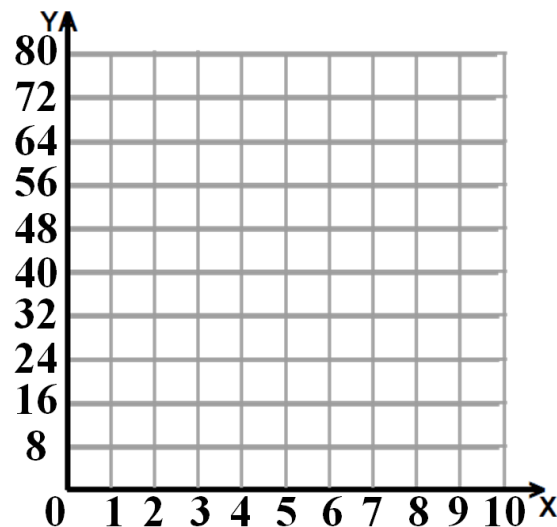
6. Complete the table for the first five bracelets.

<b>Charms</b>					
<b>Bracelets</b>	<b>1</b>	<b>2</b>			

7. Write ordered pairs, letting the  $x$ -coordinate represent the number of bracelets. \_\_\_\_\_

8. Give the graph a title and labels. Graph the ordered pairs.

9. What does the point (1, 8) represent on the graph?



10. Using the graph, how many charms are needed for 7 bracelets? \_\_\_\_\_

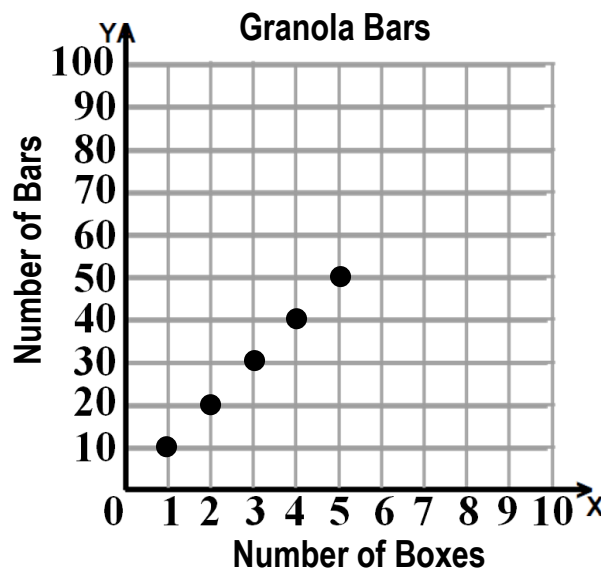
This graph shows the number of granola bars that are in boxes. Use the graph for 11-13.

11. Complete the table of equivalent ratios.

<b>Bars</b>					
<b>Boxes</b>	<b>1</b>	<b>2</b>			<b>5</b>

12. Write the unit rate of granola bars per box.

13. Using the graph, how many boxes do you have to buy to get 90 granola bars? \_\_\_\_\_



14. A graph shows the distance a car traveled over time. The  $x$ -axis represents time in hours, and the  $y$ -axis represents distance in miles. The graph contains the point (3, 165). What does this point represent?

- A. The car traveled 3 miles, stopped, then traveled 165 miles.
- B. The car traveled for 3 miles, then traveled for 165 more miles.
- C. The car traveled 165 miles in 3 hours.
- D. The car traveled 3 miles in 165 hours.

15. Kina charges \$11.00 per hour to babysit. She makes a graph comparing the amount she charges (the  $y$ -coordinate) and the time she babysits (the  $x$ -coordinate). Which ordered pair is NOT on the graph?

- A. (3, 33)
- B. (11, 1)
- C. (5, 55)
- D. (2, 22)