

# Practice

1. This graph shows how the height of oil in a camping lantern changes over time.

Find the vertical and horizontal intercepts.

What do they represent?

The vertical intercept is: \_\_\_\_\_

This represents the height of oil in the lantern

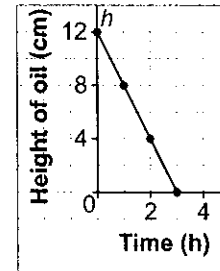
at the \_\_\_\_\_, at \_\_\_\_\_ h of burning: \_\_\_\_\_ cm

The horizontal intercept is: \_\_\_\_\_

This represents the time when the height of oil

in the lantern is \_\_\_\_\_ cm: after \_\_\_\_\_ h

Height of Oil in Lantern



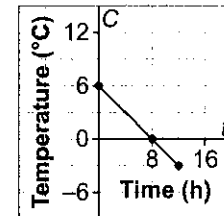
2. This graph shows the temperature in a location over a 12-h period.

Find the domain and range.

So, the domain is: \_\_\_\_\_  $\leq$  \_\_\_\_\_  $\leq$  \_\_\_\_\_

So, the range is: \_\_\_\_\_  $\leq$  \_\_\_\_\_  $\leq$  \_\_\_\_\_

Temperature in a Location



3. Use intercepts to sketch the linear function  $y = 3x + 6$ .

To find the  $y$ -intercept,  
substitute  $x =$  \_\_\_\_\_.

$$y = 3(\text{_____}) + 6$$

$$y = \text{_____}$$

To find the  $x$ -intercept,  
substitute  $y =$  \_\_\_\_\_.

$$\text{_____} = 3x + 6$$

$$0 - \text{_____} = 3x + 6 - \text{_____}$$

$$\text{_____} = \text{_____}$$

$$\text{_____} = \text{_____}$$

$$x = \text{_____}$$

Find the coordinates of another point on the graph.

Substitute  $x = 1$  in  $y = 3x + 6$ .

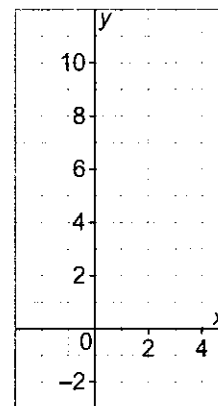
$$y = 3(\text{_____}) + 6$$

$$y = \text{_____}$$

Mark points at \_\_\_\_\_ on the  $y$ -axis;

at \_\_\_\_\_ on the  $x$ -axis; and at \_\_\_\_\_.

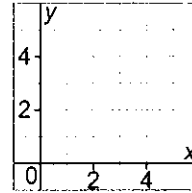
Draw a line through the points.



4. Use intercepts to sketch the linear function  $y = -x + 5$ .

Find the intercepts and the coordinates of a 3rd point on the line.

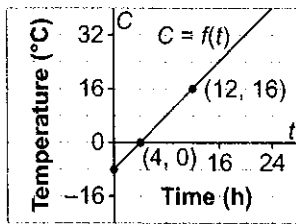
	When...	Then...
y-intercept	$x = 0$	$y = -(\underline{\quad}) + 5$ $y = \underline{\quad}$
x-intercept		
3rd point		



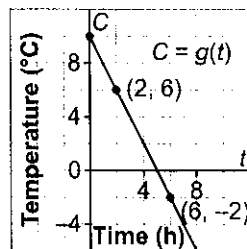
Mark points at  $\underline{\quad}$  on the y-axis; at  $\underline{\quad}$  on the x-axis; and at  $\underline{\quad}$ .  
Draw a line through the points.

5. The graphs below show how the temperature changes over time at different locations. Match each graph to its rate of change and vertical intercept.

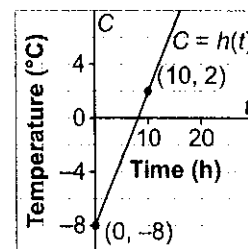
Graph A



Graph B



Graph C



- a) rate of change: 1                      vertical intercept:  $-8$
- b) rate of change: 2                      vertical intercept:  $-8$
- c) rate of change:  $-2$                     vertical intercept: 10