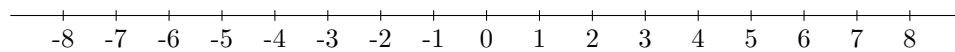


First Name \_\_\_\_\_ Last Name \_\_\_\_\_ Date \_\_\_\_ - \_\_\_\_ - \_\_\_\_ Period \_\_\_\_ Score \_\_\_\_

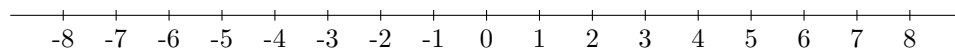
BE PRECISE	Integrating	Applying	Practicing	Acquiring	Awaiting Evidence
I can calculate accurately and efficiently, and be precise in all of my math.	Selects and applies the correct procedure and solves all routine AND integrating problems. AND Expresses the answer to the correct level of precision needed for the problem (including the correct rounding, units, math symbols, labeling, graphing, vocab...)	Selects and applies the correct procedure and solves all routine problems. AND Expresses the answer to the correct level of precision needed for the problem (including the correct rounding, units, math symbols, labeling, graphing, vocab...)	Selects and applies the correct procedure and solves most routine problems. AND Expresses the answer to the correct level of precision needed for the problem (including the correct rounding, units, math symbols, labeling, graphing, vocab...)	Selects and applies the correct procedure and solves some routine problems. AND Attempts to express the answer to the correct level of precision needed for the problem (including the correct rounding, units, math symbols, labeling, graphing, vocab...)	Selects and attempts to apply the correct procedure for some routine problems.
Criteria					

### Problem.

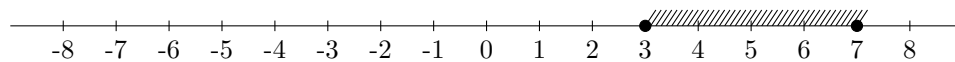
1. Shade the segment represented by the interval  $[-7, 0)$  on the number line. Use  $\bullet$  to indicate a closed endpoint, and  $\circ$  to indicate an open endpoint.



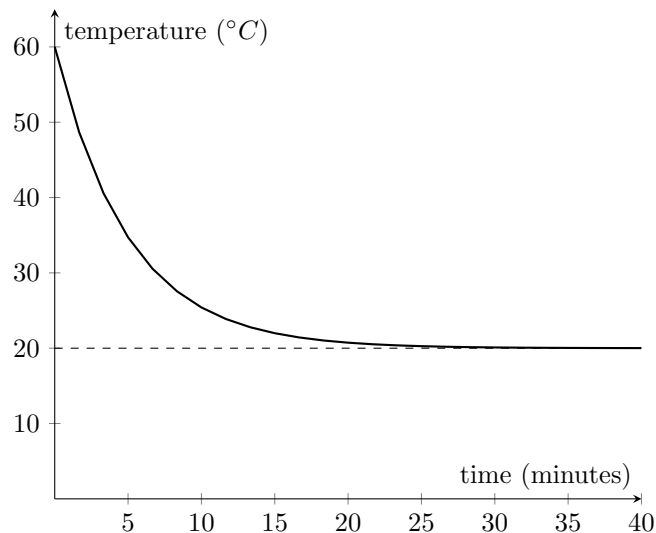
2. Shade the segment represented by the interval  $(-3, \infty)$  on the number line. Use  $\bullet$  to indicate a closed endpoint, and  $\circ$  to indicate an open endpoint.



3. The interval represented by the shaded segment below is \_\_\_\_\_.

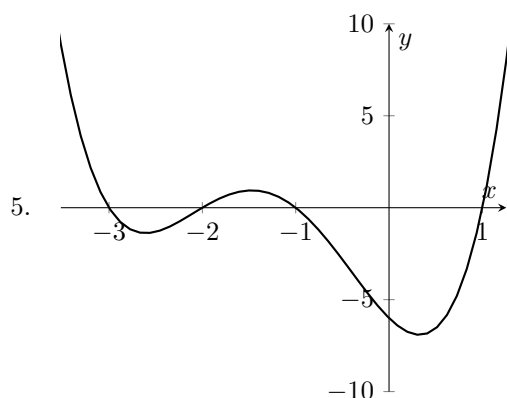


4. The following graph shows the state of an object cooling over time:



- (a) What is the temperature of the object as time approaches infinity? \_\_\_\_\_.
- (b) What can you infer about the room temperature in which this cooling process was taking place? \_\_\_\_\_.

**Direction.** Describe the end behaviors of the graphs below. If the graph doesn't have a definite end behavior, put "N/A".



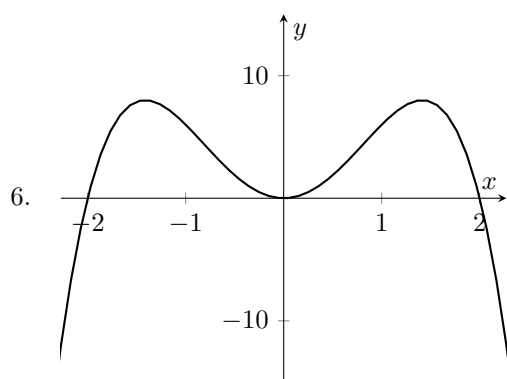
$$y = x^4 + 5x^3 + 5x^2 - 5x - 6.$$

As  $x$  approaches  $\infty$ ,  $y$  approaches \_\_\_\_\_.

As  $x$  approaches  $-\infty$ ,  $y$  approaches \_\_\_\_\_.

Does the graph have an absolute maximum? \_\_\_\_\_.

Does the graph have an absolute minimum? \_\_\_\_\_.



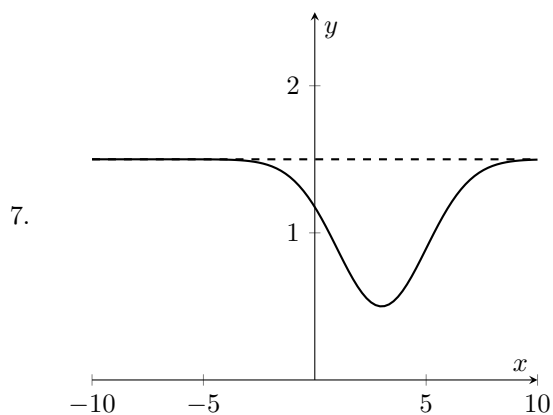
$$y = -2x^4 + 8x^2.$$

As  $x$  approaches  $\infty$ ,  $y$  approaches \_\_\_\_\_.

As  $x$  approaches  $-\infty$ ,  $y$  approaches \_\_\_\_\_.

Does the graph have an absolute maximum? \_\_\_\_\_.

Does the graph have an absolute minimum? \_\_\_\_\_.



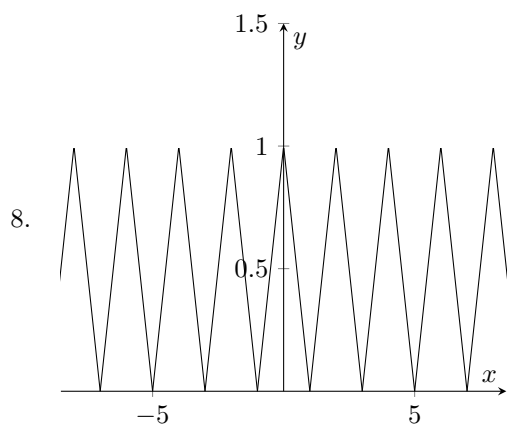
$$y = -e^{-(x-3)^2/8} + 1.5.$$

As  $x$  approaches  $\infty$ ,  $y$  approaches \_\_\_\_\_.

As  $x$  approaches  $-\infty$ ,  $y$  approaches \_\_\_\_\_.

Does the graph have an absolute maximum? \_\_\_\_\_.

Does the graph have an absolute minimum? \_\_\_\_\_.



$y = f(x)$  is a periodic function that repeats the same pattern over and over.

As  $x$  approaches  $\infty$ ,  $y$  approaches \_\_\_\_\_.

As  $x$  approaches  $-\infty$ ,  $y$  approaches \_\_\_\_\_.

Does the graph have an absolute maximum? \_\_\_\_\_.

Does the graph have an absolute minimum? \_\_\_\_\_.