

Assignment #5

Determine the end behavior for each function below. Place the letter(s) of the appropriate statement(s) on the line provided.

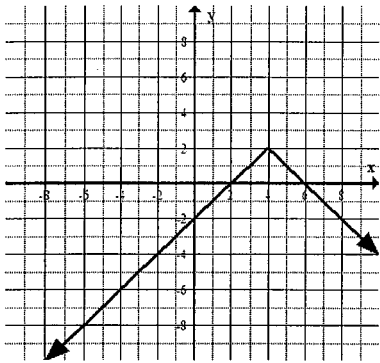
A. As  $x$  approaches  $\infty$ ,  $y$  approaches  $\infty$

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

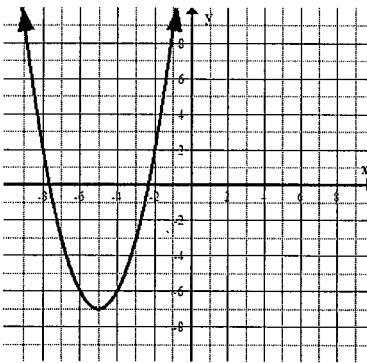
C. As  $x$  approaches  $\infty$ ,  $y$  approaches  $-\infty$

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

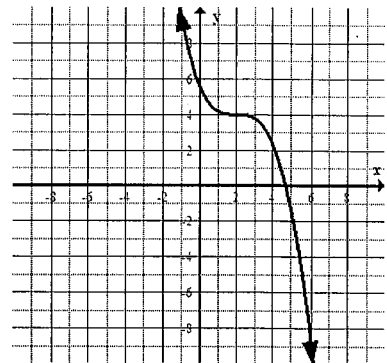
1. \_\_\_\_\_



2. \_\_\_\_\_



3. \_\_\_\_\_



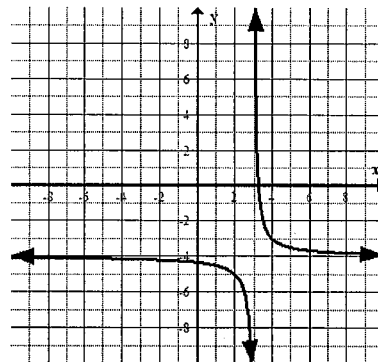
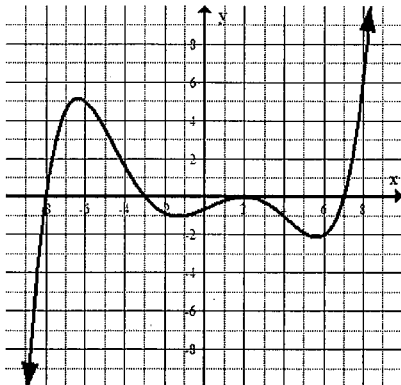
Give the end behavior for each function by filling in each blank.

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

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

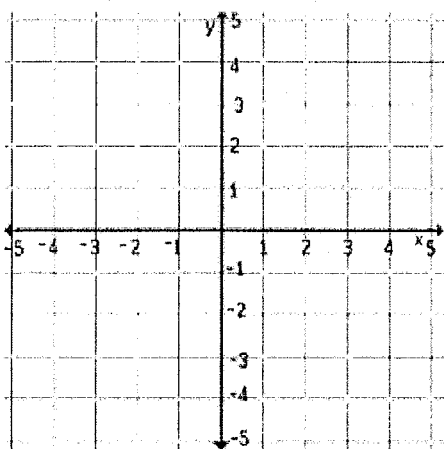
As  $x$  approaches \_\_\_\_\_,  $y$  approaches \_\_\_\_\_

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



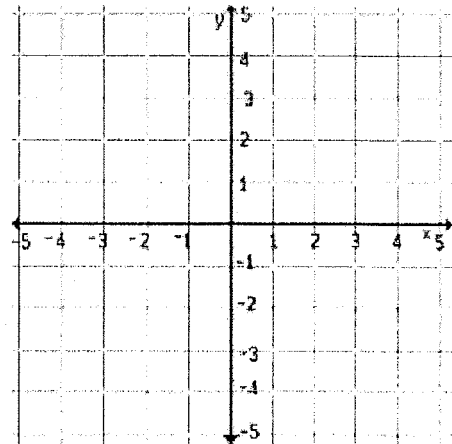
Draw a function that satisfies the given domain and range.

6.



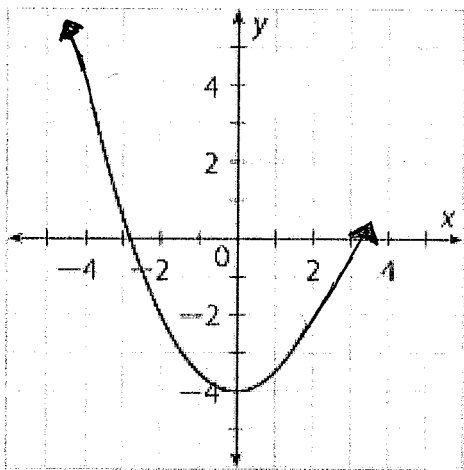
Domain:  $(-4, 3]$   
Range:  $(0, 2]$

7.



Domain:  $[-2, 2]$   
Range:  $[-2, 2]$

Write the domain and the range of the function using set notation, and using interval notation. Also, describe the end behavior of the function or explain why there is no end behavior.



**Domain:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

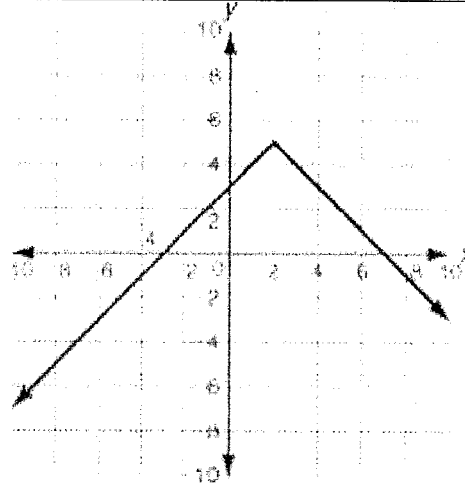
**Range:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

**End Behavior:** \_\_\_\_\_

\_\_\_\_\_



**Domain:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

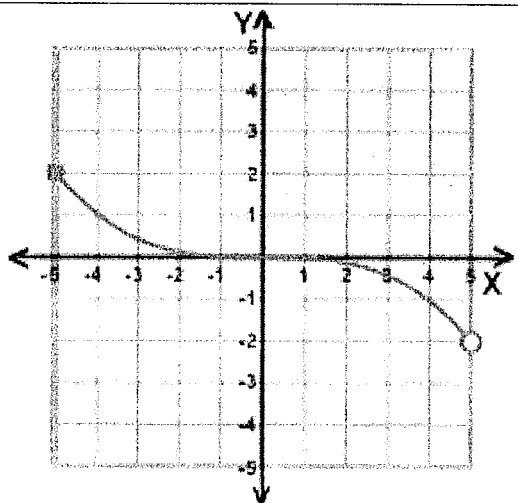
**Range:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

**End Behavior:** \_\_\_\_\_

\_\_\_\_\_



**Domain:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

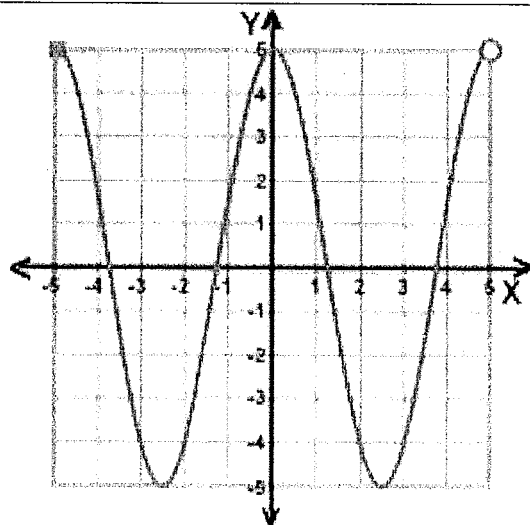
**Range:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

**End Behavior:** \_\_\_\_\_

\_\_\_\_\_



**Domain:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

**Range:**

Set: \_\_\_\_\_

Interval: \_\_\_\_\_

**End Behavior:** \_\_\_\_\_

\_\_\_\_\_