$\qquad$

## Evaluate: Notation and Intervals

Determine the intervals where the graph is increasing, decreasing, constant, positive, and negative.
1.

2.

3.

4. Rewrite the following inequality in interval notation and sketch a graph on a number line.

$$
-2 \leq x<4
$$

5. Rewrite the following interval in inequality notation and sketch a graph on a number line.

$$
(-\infty, 2) U[5, \infty)
$$

Create the graphs given the following attributes.
6. Linear

Domain: $\mathbb{R}$
Range: $-\infty<\mathbf{y} \leq 6$

7. U or V shaped

Increasing interval: (-8,-4)
Decreasing interval: (-4,2)

8. U or V shaped

Constant at $\mathbf{x}=\mathbf{- 2}$
Positive intervals: [-6,-4) U(1, $\mathbf{~ ( ~} \mathbf{~}$ )
Negative interval: (-4, $\mathbf{1}$ )


