

1. Evaluate $|-7|$.

Distance from 0

Answer: 7

2. Evaluate $|5 - 9|$.

Inside first: -4

Answer: 4

3. $f(x) = |x|$. Find $f(-6)$.

$|-6|$

Answer: 6

4. $f(x) = |x - 2|$. Find $f(5)$ and $f(-1)$.

$|3| = 3$; $|-3| = 3$

Answer: 3 and 3

5. $f(x) = |x| + 3$. What is the minimum value?

$|x| \geq 0$, so add 3

Answer: 3 (at $x = 0$)

6. $f(x) = |x - 4|$: where is the vertex of the V?

Inside = 0 when $x = 4$

Answer: (4, 0)

7. $f(x) = |x + 1| - 2$: vertex?

$x = -1$ makes inside 0, then -2

Answer: (-1, -2)

8. Solve $|x| = 8$.

Two distances of 8

Answer: $x = 8$ or $x = -8$

9. Solve $|x - 3| = 5$. ★ challenge

$x - 3 = 5$ or $x - 3 = -5$

Answer: $x = 8$ or $x = -2$

10. Parking: \$4 for each hour OR PART of an hour. Cost for 2.5 hours, and why is this a 'step'? ★ challenge

Part of hour 3 rounds UP to 3 steps

3×4

Answer: \$12 - price jumps in steps