

1. Is $y = 3x^2 - x + 6$ a quadratic?

Has an x^2 term

Answer: Yes

2. Does $y = -2x^2 + 5$ open up or down?

$a = -2 < 0$

Answer: down

3. Does $y = x^2 - 4x$ open up or down?

$a = 1 > 0$

Answer: up

4. Find y when $x = 3$ for $y = x^2 - 2x + 1$.

$9 - 6 + 1$

Answer: 8

5. Which point lies on $y = 3x^2 - (1/4)x + 3$: $(-2, 15.5)$? (Trainer echo - Aug 2025 Q5!)

$3(4) - (1/4)(-2) + 3 = 12 + 0.5 + 3$

Answer: yes, 15.5

6. Make a table for $y = x^2$ with $x = -2, -1, 0, 1, 2$.

4, 1, 0, 1, 4

Answer: symmetric U, vertex (0,0)

7. For $y = x^2 - 9$, where does the graph cross the x-axis?

$y = 0$: $x^2 = 9$

Answer: $x = 3$ and -3

8. A parabola passes through $(0, 5)$. What is its y-intercept?

$x = 0$ gives y

Answer: 5

9. For $y = 2x^2 - x + 6$, find y when $x = -6$. (Trainer echo - Jan 2026 Q17 setup!) ★ challenge

$2(36) - (-6) + 6 = 72 + 6 + 6$

Answer: 84

10. A ball's height is $y = -x^2 + 4$. Is $(2, 0)$ on the graph? What does it mean? ★ challenge

$-(4) + 4 = 0$, yes

Height 0 = hits the ground

Answer: yes; ball lands at $x = 2$