

1. Students need to **memorize the first 25 squares**

$$\{1^2 = 1, 2^2 = 4, 3^2 = 9, \dots 25^2 = 625\}$$

2. What is the value of  $|-7|$ ?

3. Simplify:  $\sqrt{36}$

4. Calculate:  $2^4$

5. Evaluate:  $|-12| + 5$

6. Simplify:  $\sqrt{81} - 3$

### Intermediate Questions:

6. Evaluate:  $|-3 \cdot 4| + 2^3$

7. Simplify:  $\sqrt{25} \cdot \sqrt{36} - 1$

8. Calculate:  $(5 - 2)^3 + |-12|$

9. If  $x = -6$ , what is the value of  $|x| + x^2$ ?

10. Solve for y:  $2\sqrt{y} = 18$

11. Simplify:  $(\sqrt{9})^2 + |-11|$

12. Calculate:  $3^3 - \sqrt{49} + |5|$

13. Could  $\sqrt{100}$  equal to  $-10$ ? Explain.

14. What is the value of  $2^5 - |-8| + \sqrt{225}$ ?

15. If  $a = -4$ , find the value of  $|a| + \frac{a^2}{2}$ .

### Advanced/Challenging Questions:

16. Simplify:  $\sqrt{196} + |-5 \cdot 3| + (-3)^2$

17. Solve for x:  $x^2 = 289$  (consider both positive and negative solutions).

18. Evaluate:  $|\sqrt{256} - 2^5| + \left(\frac{1}{2}\right)^3$ , mixed number as solution.

19. Given  $f(x) = |10 - x^2| + \sqrt{x - 3}$ , find  $f(12)$ .

20. Simplify:  $4 \cdot \sqrt{289 - 64} - (-2)^3$

21. Order from least to greatest:  $|-5|$ ,  $2^2$ ,  $\sqrt{25}$ ,  $-|7|$ ,  $(-2)^4$

22. Solve for m:  $|m - 5| = 8$ , think about all possibilities. Two solutions!

23. Find the value of  $(-3)^3 + |-2 \cdot 5| - \frac{\sqrt{576}}{3}$ .