Finding a Square Root to Solve Problems

➤ **Solve each equation.**

1 $x^2 = 64$

± 8

2 $a^2 = \dfrac{1}{49}$

$\pm\dfrac{1}{7}$

3 $y^2 = 81$

± 9

4 $p^2 = \dfrac{1}{121}$

$\pm\dfrac{1}{11}$

5 $s^2 = 100$

± 10

6 $m^2 = \dfrac{9}{16}$

$\pm\dfrac{3}{4}$

7 $f^2 = 84$

$\pm\sqrt{84}$

8 $k^2 = \dfrac{25}{144}$

$\pm\dfrac{5}{12}$

9 $g^2 = 36$

± 6

10 $w^2 = \dfrac{3}{8}$

$\pm\sqrt{\dfrac{3}{8}}$

11 $c^2 = \dfrac{4}{225}$

$\pm\dfrac{2}{15}$

12 $t^2 = 169$

± 13

13 $r^2 + 7 = 32$

± 5

14 $d^2 - 2 = 7$

± 3

15 $j^2 - 12 = 120$

$\pm\sqrt{132}$

16 Describe a circumstance where there would NOT be both a positive and a negative solution when finding the square root.

Possible answer: When the square root represents a distance, such as the side length of a square, then only the positive value makes sense.