Box II (How About...?)

1. \( \sqrt{\frac{m}{7}} + 4 = 9 \)
   - \( \sqrt{\frac{m}{7} + 4} = 9 \)
   - \( \sqrt{\frac{m}{7} + 4} = 9 \)
   - \( \sqrt{\frac{75}{7} + 4} = 9 \)
   - \( \sqrt{5 + 4} = 9 \)
   - \( \sqrt{9} = 3 \)
   - \( \sqrt{\frac{m}{7}} = \frac{3}{7} \)
   - \( \frac{m}{7} = \frac{9}{49} \)
   - \( m = 175 \)

2. \( \sqrt{\frac{2x}{3} - 1} = 3 \)
   - \( \left( \frac{2x}{3} - 1 \right) = 9 \)
   - \( \frac{2x}{3} = 10 \)
   - \( x = 15 \)

3. \( (\sqrt{12t - 5})^2 = (\sqrt{9t + 14})^2 \)
   - \( 12t - 5 = 9t + 14 \)
   - \( 3t = 19 \)
   - \( t = \frac{19}{3} \)

4. \( (3\sqrt{a})^2 = (\sqrt{5a + 8})^2 \)
   - \( 9a = 5a + 80 \)
   - \( 4a = 80 \)
   - \( a = 20 \)

5. \( y^2 = (\sqrt{7y - 10})^2 \)
   - \( y^2 - 7y + 10 = 0 \)
   - \( (y - 5)(y - 2) = 0 \)
   - \( y = 5 \) or \( y = 2 \)

6. \( x^2 = (\sqrt{15 - 2x})^2 \)
   - \( x^2 - 2x - 15 = 0 \)
   - \( (x - 5)(x + 3) = 0 \)
   - \( x = 5 \) or \( x = -3 \)

7. \( 4(5) - (\sqrt{a})^2 = (20 - (\sqrt{a})^2 \)
   - \( 20 = 0 \)

8. \( (15)^2 = (\sqrt{1.5h})^2 \)
   - \( 225 = 1.5h \)
   - \( h = 150 \)

9. \( \frac{150}{15} = h \)
   - \( h = 10 \)

\( \sqrt{150} = 10 \sqrt{3} \)
(3n)² = (10n - 1)²
9n² = 10n - 1
9n² - 10n + 1 = 0
(n - 1)(3n - 1) = 0
n = 1/3 or n = 1

(9n - 1)(n - 1) = 0
n = 1/9 or n = 1

(2p)² = (p + 5)²
4p² = p + 5
4p² - p - 5 = 0
(p - 5/4)² = 5²
p = 5/4 or p = -1

(b - 2)² = (3b - 8)²
b² - 4b + 4 = 3b² - 8b + 16
b² - 7b + 12 = 0
(b - 3)(b - 4) = 0
b = 3 or b = 4

(17)² = (4 ± 217)²
289 = ± 2173
1u = °Celsius

\( \frac{\sqrt{340 \div 20}}{20} = \frac{17}{2} \)
\( (\frac{17}{2})² = (\sqrt{2173})² \)
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