

Pre-Calculus  
Radical Practice

Name \_\_\_\_\_

Solve for the indicated variable:

1. Solve for B:  $V = \frac{1}{3}Bh$
2. Solve for m:  $e = mc^2$
3. Solve for a:  $y = a(x-h)^2 + k$

Evaluate:

4.  $\sqrt{3600}$
5.  $\sqrt{\frac{16}{25}}$
6.  $\sqrt{40a^3b^6}$
7.  $3\sqrt{5} \cdot 4\sqrt{6}$
8.  $\sqrt{\frac{2}{3}}$
9.  $\frac{1}{3+\sqrt{2}}$
10.  $4\sqrt{11} - 3\sqrt{11} + 7\sqrt{11}$
11.  $\sqrt{18} + \sqrt{50}$
12.  $\sqrt{-5} \cdot 6i$
13.  $-\sqrt{-3}\sqrt{-15}$
14.  $(9-4i) - (3+2i)$
15.  $(6+2i)(6-2i)$
16.  $\frac{\sqrt{3}-5}{\sqrt{2}+5}$
17.  $\frac{\sqrt{5}-\sqrt{2}}{\sqrt{2}+\sqrt{3}}$
18.  $\frac{8-3i}{-2+7i}$

Solve

19.  $\sqrt{\frac{x}{3}} = 2$
20.  $2\sqrt{x} = 8$
21.  $\sqrt{2x+3} = 1$
22.  $\sqrt[4]{x+3} = 3$
23.  $\sqrt[3]{x+3} = 0$
24.  $\sqrt[3]{3x+6} + 2 = 3$
25.  $\sqrt{5x-2} = \sqrt{3}$
26.  $2\sqrt{1-x} = \sqrt{5}$
27.  $3 + \sqrt{x-6} = \sqrt{x+9}$
28.  $x-5 = \sqrt{x+7}$
29.  $x^2 + 4 = 0$
30.  $x^2 + 2x + 2 = 0$