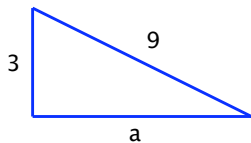


Math 99 Worksheet #5

May 11, 2007

Simplify your answers as much as possible.

1. Find the length of the unknown side of the following right triangle.



2. Simplify the following.

- (a) $1 + \sqrt[4]{3} - 4\sqrt[4]{3}$
- (b) $3\sqrt{2t} + \sqrt{8t}$
- (c) $4\sqrt{5}(3 + \sqrt{2})$
- (d) $(1 - 3\sqrt{7})(1 + 3\sqrt{7})$
- (e) $\sqrt{\frac{8}{9}} + \frac{\sqrt{2}}{\sqrt{36}}$

3. Rationalize the denominator in each expression.

- (a) $\frac{-6}{\sqrt{18}}$
- (b) $\frac{4}{3 + \sqrt{7}}$
- (c) $\frac{2}{\sqrt[3]{5}}$

4. Solve each equation.

- (a) $\sqrt[3]{2x + 1} = 3$
- (b) $2\sqrt{m} = \sqrt{m^2 - 3m - 8}$

5. Find the distance between the points $(3\sqrt{5}, 2\sqrt{3})$ and $(\sqrt{5}, 4\sqrt{3})$.

6. Solve for x : $\sqrt{4x - 1} = \sqrt{4x + 7} - 4$