

Simplifying Radical Expressions

Simplify.

1) $\sqrt{12}$

2) $\sqrt{54}$

3) $\sqrt{75}$

4) $\sqrt{45}$

5) $\sqrt{180}$

6) $\sqrt{20}$

7) $5\sqrt{150}$

8) $6\sqrt{45}$

9) $2\sqrt{72}$

10) $3\sqrt{64}$

11) $2\sqrt{27}$

12) $6\sqrt{320}$

13) $\frac{\sqrt{2}}{\sqrt{5}}$

14) $\frac{\sqrt{5}}{3\sqrt{3}}$

15) $\frac{\sqrt{10}}{5\sqrt{15}}$

16) $\frac{\sqrt{3}}{\sqrt{5}}$

17) $\frac{\sqrt{4}}{\sqrt{3}}$

18) $\frac{\sqrt{4}}{4\sqrt{5}}$

19) $\frac{\sqrt{4}}{2\sqrt{3}}$

20) $\frac{\sqrt{8}}{\sqrt{6}}$

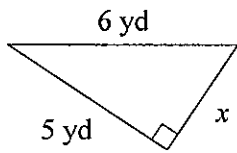
21) $\frac{\sqrt{5}}{\sqrt{10}}$

22) $\frac{2}{5\sqrt{5}}$

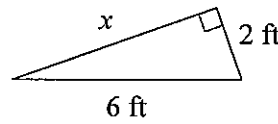
Pythagorean theorem

Find the missing side of each triangle. Leave your answers in simplest radical form.

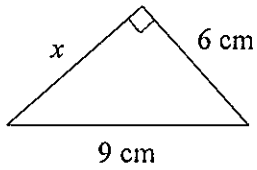
1)



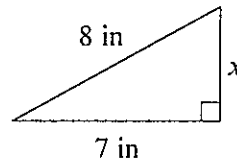
2)



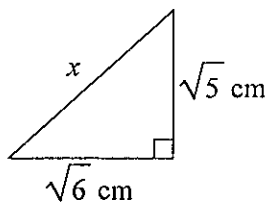
3)



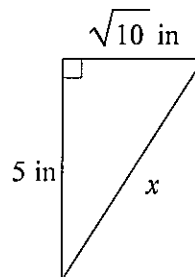
4)



5)



6)



Simplifying Radical Expressions

Simplify.

1) $\sqrt{12}$

$2\sqrt{3}$

3) $\sqrt{75}$

$5\sqrt{3}$

5) $\sqrt{180}$

$6\sqrt{5}$

7) $5\sqrt{150}$

$25\sqrt{6}$

9) $2\sqrt{72}$

$12\sqrt{2}$

11) $2\sqrt{27}$

$6\sqrt{3}$

13) $\frac{\sqrt{2}}{\sqrt{5}} \cdot \frac{\sqrt{10}}{5}$

15) $\frac{\sqrt{10}}{5\sqrt{15}} \cdot \frac{\sqrt{6}}{15}$

17) $\frac{\sqrt{4}}{\sqrt{3}} \cdot \frac{2\sqrt{3}}{3}$

19) $\frac{\sqrt{4}}{2\sqrt{3}} \cdot \frac{\sqrt{3}}{3}$

21) $\frac{\sqrt{5}}{\sqrt{10}} \cdot \frac{\sqrt{2}}{2}$

2) $\sqrt{54}$

4) $\sqrt{45}$

6) $\sqrt{20}$

8) $6\sqrt{45}$

10) $3\sqrt{64}$

12) $6\sqrt{320}$

14) $\frac{\sqrt{5}}{3\sqrt{3}}$

16) $\frac{\sqrt{3}}{\sqrt{5}}$

18) $\frac{\sqrt{4}}{4\sqrt{5}}$

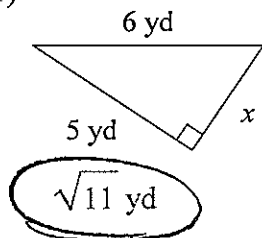
20) $\frac{\sqrt{8}}{\sqrt{6}}$

22) $\frac{2}{5\sqrt{5}}$

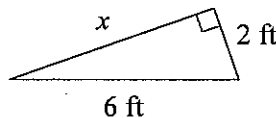
Pythagorean theorem

Find the missing side of each triangle. Leave your answers in simplest radical form.

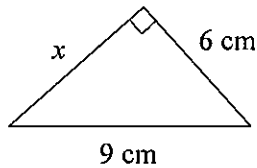
1)



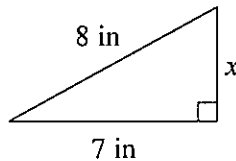
2)



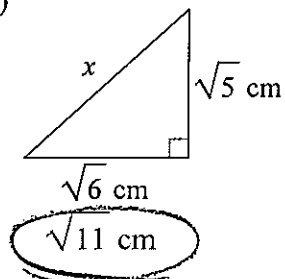
3)

 $3\sqrt{5}$ cm

4)



5)



6)

