

Pre 5.2 - Simplifying Radicals Worksheet

1. Simplify

a.  $\sqrt{12}$

b.  $\sqrt{20}$

c.  $\sqrt{50}$

d.  $\sqrt{75}$

e.  $\sqrt{32}$

f.  $\sqrt{48}$

g.  $\sqrt{90}$

h.  $\sqrt{200}$

i.  $\sqrt{18}$

j.  $\sqrt{40}$

2. Simplify

a.  $\frac{\sqrt{14}}{\sqrt{7}}$

b.  $\frac{\sqrt{40}}{\sqrt{5}}$

c.  $\frac{\sqrt{60}}{\sqrt{3}}$

d.  $\frac{3\sqrt{8}}{\sqrt{2}}$

e.  $\frac{27\sqrt{15}}{3\sqrt{5}}$

f.  $\frac{12\sqrt{75}}{4\sqrt{3}}$

3. Simplify

a.  $\frac{1}{\sqrt{3}}$

b.  $\frac{2}{\sqrt{2}}$

c.  $\frac{4}{\sqrt{5}}$

d.  $\sqrt{\frac{5}{3}}$

e.  $\sqrt{\frac{1}{2}}$

4. Simplify

a.  $\frac{2}{\sqrt{2}}$

b.  $\frac{4\sqrt{2}}{\sqrt{8}}$

c.  $\frac{4\sqrt{7}}{2\sqrt{14}}$

d.  $\frac{3\sqrt{6}}{4\sqrt{10}}$

e.  $\frac{2\sqrt{2}}{\sqrt{18}}$

5. Simplify

a.  $\frac{2 \pm 2\sqrt{3}}{4}$

b.  $\frac{2 \pm \sqrt{12}}{4}$

c.  $\frac{6 \pm \sqrt{24}}{4}$

d.  $\frac{11 \pm \sqrt{18}}{3}$

e.  $\frac{8 \pm \sqrt{32}}{2}$

f.  $\frac{12 \pm \sqrt{8}}{8}$

g.  $\frac{15 \pm \sqrt{75}}{10}$

h.  $\frac{7 \pm \sqrt{98}}{14}$

i.  $\frac{-10 \pm \sqrt{50}}{\sqrt{25}}$

j.  $\frac{-3 \pm \sqrt{27}}{\sqrt{81}}$

Answers

1.a  $2\sqrt{3}$

b.  $2\sqrt{5}$

c.  $5\sqrt{2}$

d.  $5\sqrt{3}$

e.  $4\sqrt{2}$

f.  $4\sqrt{3}$

g.  $3\sqrt{10}$

h.  $10\sqrt{2}$

i.  $3\sqrt{2}$

j.  $2\sqrt{10}$

2a.  $\sqrt{2}$

b.  $2\sqrt{2}$

c.  $2\sqrt{5}$

d. 6

e.  $9\sqrt{3}$

f. 15

3a.  $\frac{\sqrt{3}}{3}$

b.  $\sqrt{2}$

c.  $\frac{4\sqrt{5}}{5}$

d.  $\frac{\sqrt{15}}{3}$

e.  $\frac{\sqrt{2}}{2}$

4a.  $\sqrt{2}$

b. 2

c.  $\sqrt{2}$

d.  $\frac{3\sqrt{15}}{20}$

e.  $\frac{2}{3}$

5a.  $\frac{1 \pm \sqrt{3}}{2}$

b.  $\frac{1 \pm \sqrt{3}}{2}$

c.  $\frac{3 \pm \sqrt{6}}{2}$

d.  $\frac{11 \pm 3\sqrt{2}}{3}$

e.  $4 \pm 2\sqrt{2}$

f.  $\frac{6 \pm \sqrt{2}}{4}$

g.  $\frac{3 \pm \sqrt{3}}{2}$

h.  $\frac{1 \pm \sqrt{2}}{2}$

i.  $-2 \pm \sqrt{2}$

j.  $\frac{-1 \pm \sqrt{3}}{3}$

