

1. Simplify.

a. $\sqrt{8}$

b. $\sqrt{24}$

c. $\sqrt{42}$

d. $\sqrt{12}$

e. $\sqrt{56}$

f. $\sqrt{100}$

g. $\sqrt[3]{-250}$

h. $\sqrt{125}$

i. $\sqrt{45}$

a. $\sqrt{18}$

b. $\sqrt{36}$

c. $\sqrt{50}$

d. $\sqrt{40}$

e. $\sqrt{45}$

f. $\sqrt[3]{40}$

g. $2\sqrt{50}$

h. $5\sqrt{12}$

i. $-3\sqrt{28}$

2. Simplify

a. $3\sqrt{3} - 4\sqrt{3} + 5\sqrt{3} + \sqrt{3}$

b. $4\sqrt{3} - 4\sqrt{2} + 4\sqrt{3} + 5\sqrt{2}$

c. $3\sqrt{12} - 4\sqrt{27} + 5\sqrt{48}$

d. $\sqrt{20} - 3\sqrt{245} + 4\sqrt{20}$

e. $-3\sqrt{8} - 2\sqrt{18} + 5\sqrt{72}$

f. $-3\sqrt{50} - \sqrt{32} + 5\sqrt{200}$

g. $12\sqrt{18} - 2\sqrt{27} - 2\sqrt{18} + 6\sqrt{3}$

h. $4\sqrt{12} + 5\sqrt{27} - 6\sqrt{48} + 2\sqrt{75}$

3. Simplify

a. $(2\sqrt{3})(4\sqrt{2})$

b. $(4\sqrt{6})(2\sqrt{3})$

c. $(-\sqrt{10})(4\sqrt{2})$

d. $(3\sqrt{3})(-2\sqrt{2})(5\sqrt{6})$

e. $(3\sqrt{5})(2\sqrt{2}-3\sqrt{3})$

f. $(-3\sqrt{3})(2\sqrt{6}-3\sqrt{2})$

g. $(3\sqrt{5}+4\sqrt{2})(2\sqrt{2}-3\sqrt{3})$

h. $(3\sqrt{5}+\sqrt{2})(2\sqrt{5}-3\sqrt{3})$

i. $(4+\sqrt{2})(4-\sqrt{2})$

j. $(5\sqrt{5}+4\sqrt{2})(6\sqrt{3}-\sqrt{2})$

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

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

m. $\frac{1+\sqrt{5}}{\sqrt{2}}$

4. Simplify each of the following and state restrictions.

a. $\sqrt{x^3}$ b. $\sqrt{50x^4}$ c. $\sqrt{8x}$ d. $\sqrt{54x^5}$

02. Add the following:

a. $\sqrt{x} + 5\sqrt{x}$ b. $2\sqrt{x} - 4\sqrt{9x}$

5. Multiply the following:

a. $(3x\sqrt{5x})(4\sqrt{2x^2})$ b. $(2\sqrt{3x})(5\sqrt{6^3})$

6. What are the restriction on :

a. $\sqrt{2x-5}$ b. $\sqrt{6-2x}$

7. Divide the following:

a. $\frac{1}{\sqrt{x}}$ b. $\frac{\sqrt{2x}}{\sqrt{3x}}$ c. $\frac{3}{\sqrt{2x}}$