

Simplify the expression and find your answer in the adjacent answer column. Write the letter of the exercise in the box that contains the number of the answer. Assume that all variables represent nonnegative numbers.



G $\sqrt{12}$

I $\sqrt{50}$

O $\sqrt{45}$

E $\sqrt{600}$

S $\sqrt{98}$

U $\sqrt{48}$

O $\sqrt{125}$

W $\sqrt{162}$

9 $5\sqrt{2}$

2 $5\sqrt{5}$

35 $6\sqrt{2}$

33 $4\sqrt{3}$

14 $10\sqrt{6}$

20 $2\sqrt{3}$

5 $4\sqrt{5}$

23 $9\sqrt{2}$

36 $3\sqrt{5}$

19 $5\sqrt{3}$

4 $7\sqrt{2}$

A $2\sqrt{18}$

O $8\sqrt{28}$

G $-3\sqrt{1000}$

E $5\sqrt{75}$

D $-4\sqrt{490}$

L $9\sqrt{72}$

H $-7\sqrt{80}$

O $3\sqrt{144}$

6 36

37 $-30\sqrt{3}$

18 $6\sqrt{2}$

21 $25\sqrt{3}$

16 $-28\sqrt{6}$

26 $54\sqrt{2}$

29 $16\sqrt{7}$

13 $-28\sqrt{5}$

24 $45\sqrt{3}$

11 $-30\sqrt{10}$

38 $-28\sqrt{10}$

1 $\sqrt{2} \cdot \sqrt{7}$

2 $\sqrt{6} \cdot \sqrt{3}$

3 $\sqrt{5} \cdot \sqrt{15}$

4 $\sqrt{3} \cdot \sqrt{8}$

5 $\sqrt{10} \cdot \sqrt{30}$

6 $\sqrt{8} \cdot \sqrt{20}$

7 $\sqrt{27} \cdot \sqrt{3}$

Answers 1-7

j · V $5\sqrt{3}$

k · L $10\sqrt{5}$

d · F $4\sqrt{10}$

o · D $3\sqrt{2}$

p · E $3\sqrt{10}$

f · Y $2\sqrt{6}$

k · R $\sqrt{14}$

q · N 9

e · A $5\sqrt{6}$

h · B $10\sqrt{3}$



8 $8\sqrt{3} \cdot 5\sqrt{2}$

9 $-4\sqrt{5} \cdot 9\sqrt{6}$

10 $3\sqrt{8} \cdot 2\sqrt{5}$

11 $12\sqrt{3} \cdot 5\sqrt{15}$

12 $5\sqrt{18} (-2\sqrt{8})$

13 $2\sqrt{5} \cdot 7\sqrt{35}$

14 $-6\sqrt{32} (-6\sqrt{2})$

Answers 8-14

m · I -120

i · C $40\sqrt{6}$

n · O $-12\sqrt{5}$

a · T $70\sqrt{7}$

n · S $12\sqrt{10}$

i · E $180\sqrt{2}$

j · U 288

b · A $70\sqrt{5}$

f · R $180\sqrt{5}$

l · E $-36\sqrt{30}$

2. Perform the following operations and simplify all radicals:

a) $3\sqrt{5} + 4\sqrt{5}$

b) $2\sqrt{7} + 7\sqrt{2}$

c) $14\sqrt{8} - 5\sqrt{8}$

d) $2\sqrt{11} + 7\sqrt{11} - 4\sqrt{11}$

e) $7\sqrt{6} + 4\sqrt{3} - 3\sqrt{6} + 2\sqrt{2}$

f) $\sqrt{8} + \sqrt{18}$

g) $\sqrt{75} - \sqrt{20}$

h) $\sqrt{27} + \sqrt{48} - 2\sqrt{3}$

i) $-5\sqrt{44} + 2\sqrt{99}$

j) $3\sqrt{72} + 2\sqrt{75} - 3\sqrt{27} + \sqrt{108}$

k) $\sqrt{250} - \sqrt{135} - \sqrt{40} + \sqrt{735}$