



Radicals - Multiplying Binomials (Values Only)



1 Multiply the radical expressions and simplify the answer

$$(2 + \sqrt{7}) \cdot (\sqrt{2} + 2)$$

A $\sqrt{2} - \sqrt{14} + 4 + \sqrt{7}$

B $\sqrt{14} - 2\sqrt{7}$

C $3 + \sqrt{14} + 2\sqrt{7}$

D $2\sqrt{2} + \sqrt{14} - 4 + \sqrt{7}$

E $2\sqrt{2} + \sqrt{14} + 4 + 2\sqrt{7}$

2 Multiply the radical expressions and simplify the answer

$$(5 - \sqrt{5}) \cdot (\sqrt{3} + 5)$$

A $5\sqrt{3} + 2\sqrt{15} + 25 - 5\sqrt{5}$

B $3\sqrt{3} - \sqrt{15} + 25 + 2\sqrt{5}$

C $\sqrt{3} - \sqrt{15} + 1 - 5\sqrt{5}$

D $5\sqrt{3} - 5\sqrt{15} + 50 - 5\sqrt{5}$

E $5\sqrt{3} - \sqrt{15} + 25 - 5\sqrt{5}$

3 Multiply the radical expressions and simplify the answer

$$(5 + \sqrt{5}) \cdot (\sqrt{11} + 2)$$

A $5\sqrt{11} + \sqrt{55} + 10 + 2\sqrt{5}$

B $5\sqrt{3} - \sqrt{55} + 10 + \sqrt{5}$

C $5\sqrt{11} - \sqrt{55} + 5 + \sqrt{5}$

D $\sqrt{11} + \sqrt{55} + 10 - 2\sqrt{3}$

E $\sqrt{11} + \sqrt{55} + 6$

4 Multiply the radical expressions and simplify the answer

$$(4 + \sqrt{5}) \cdot (\sqrt{13} + 5)$$

A $4\sqrt{13} + 21 + \sqrt{65}$

B $4\sqrt{13} + 21 + \sqrt{5}$

C $\sqrt{13} + 1 + \sqrt{65} + 5\sqrt{5}$

D $4\sqrt{13} + 1 + \sqrt{65} + 5\sqrt{5}$

E $4\sqrt{13} + 20 + \sqrt{65} + 5\sqrt{5}$

5 Multiply the radical expressions and simplify the answer

$$(\sqrt{11} - 3) \cdot (\sqrt{11} - 4)$$

A $16 - \sqrt{11}$

B $13 + \sqrt{11}$

C $15 - 7\sqrt{11}$

D $23 - 7\sqrt{11}$

E $23 + 3\sqrt{11}$

6 Multiply the radical expressions and simplify the answer

$$(2 - \sqrt{5}) \cdot (5 + \sqrt{13})$$

A $2\sqrt{13} - 3\sqrt{65}$

B $10 - 5\sqrt{5} + 2\sqrt{13} - \sqrt{65}$

C $1 - 5\sqrt{5} + 4\sqrt{13} + \sqrt{65}$

D $20 - \sqrt{5} + 2\sqrt{13} - \sqrt{65}$

E $5 - 2\sqrt{13} - \sqrt{65}$

7 Multiply the radical expressions and simplify the answer

$$(2 - \sqrt{2}) \cdot (\sqrt{11} + 4)$$

A $2\sqrt{11} + 8 - \sqrt{22} - 4\sqrt{2}$

B $\sqrt{11} + 1 - \sqrt{22} - 4\sqrt{2}$

C $2\sqrt{11} - 6 + \sqrt{2}$

D $\sqrt{11} - 1 - \sqrt{22} + 4\sqrt{2}$

E $2\sqrt{11} + 9 + 4\sqrt{2}$

8 Multiply the radical expressions and simplify the answer

$$(\sqrt{5} + 3) \cdot (\sqrt{5} - 3)$$

A -1

B $1 + 4\sqrt{5}$

C -4

D $5 + 2\sqrt{5} - 9\sqrt{2}$

E $-4 + 4\sqrt{5}$