



Radicals - Multiplying Monomials with Binomials (Values and Variables)



1 Multiply the radical expressions and simplify the answer

$$2x^2\sqrt{3} \cdot (4xr\sqrt{2x} + \sqrt{3x})$$

A $8x^4r\sqrt{6} + 6x^2\sqrt{x}$

B $8x^3r\sqrt{6x} + 6x^2\sqrt{x}$

C $8x^3r\sqrt{6x} + 3x^2\sqrt{x}$

D $8x^3r\sqrt{6x} + 6x^3$

E $8x^5r\sqrt{6x} + 6x^2\sqrt{x}$

2 Multiply the radical expressions and simplify the answer

$$2\sqrt[3]{5c^2n^2} \cdot (3\sqrt[3]{2n} - c\sqrt[3]{13})$$

A $6n\sqrt[3]{10} - 2c\sqrt[3]{65c^2n^2}$

B $6n\sqrt[3]{10c^2} - 2c\sqrt[3]{65c^2n^2}$

C $6n\sqrt[3]{10c^2} - 2cn\sqrt[3]{65c^2n}$

D $6n\sqrt[3]{10c^2} - 2c^2\sqrt[3]{65n^2}$

3 Multiply the radical expressions and simplify the answer

$$(5c\sqrt{13y} + yc\sqrt{2yc}) \cdot 2y\sqrt{3}$$

A $10yc\sqrt{39y} + 2y^2c\sqrt{6y}$

B $10yc\sqrt{39} + 2y^2c\sqrt{6yc}$

C $10yc\sqrt{39y} + 2y^2c\sqrt{6yc}$

D $10yc\sqrt{39y} + 2y^3c\sqrt{6c}$

E $10yc\sqrt{39y} + 2y^2c\sqrt{yc}$

4 Multiply the radical expressions and simplify the answer

$$(3x\sqrt{2b} - xb\sqrt{2xb}) \cdot 2x^2b^2\sqrt{7}$$

A $6x^3b^2\sqrt{14b} - 2x^3b^3\sqrt{14xb}$

B $6x^3b^3\sqrt{14b} - 2x^3b^3\sqrt{14xb}$

C $6x^3b^2\sqrt{14b} - 2x^3b^3\sqrt{14b}$

D $6x^3b^2\sqrt{14b} - 2x^3b^4\sqrt{14x}$

5 Multiply the radical expressions and simplify the answer

$$(nd^2\sqrt{7} - 2nd^2\sqrt{2}) \cdot 2n\sqrt{13n}$$

A $4n^2d^2\sqrt{91n} - 4n^2d^2\sqrt{26n}$

B $2n^2d^2\sqrt{91n} - 4n^2d^2\sqrt{26n}$

C $2n^2d^3\sqrt{91n} - 4n^2d^2\sqrt{26n}$

D $2n^2d^2\sqrt{91n} - 4n^3d^2\sqrt{26n}$

E $2n^2d^2\sqrt{91n} - 4nd^2\sqrt{26n}$

6 Multiply the radical expressions and simplify the answer

$$4p^2\sqrt{2z} \cdot (p^2\sqrt{11} + 2z^2p\sqrt{3})$$

A $4p^4\sqrt{22z} + 8p^3z^3\sqrt{6z}$

B $4p^4\sqrt{22z} + 8p^3z^2\sqrt{6}$

C $4p^4\sqrt{22z} + 8p^3z^2\sqrt{6z}$

D $p^4\sqrt{22z} + 8p^3z^2\sqrt{6z}$

7 Multiply the radical expressions and simplify the answer

$$5d\sqrt{7dy} \cdot (d^2y^2\sqrt{2} - 2\sqrt{2y})$$

A $5d^3y^2\sqrt{14dy} - 10d^3y\sqrt{14d}$

B $5d^3y^3\sqrt{14dy} - 10dy\sqrt{14d}$

C $5d^3y^2\sqrt{14dy} - 10dy\sqrt{14d}$

D $5d^3y^2\sqrt{14dy} - 10y\sqrt{14d}$

E $5d^4y^2\sqrt{14y} - 10dy\sqrt{14d}$

8 Multiply the radical expressions and simplify the answer

$$(3zd\sqrt{3d} - d^2\sqrt{13}) \cdot 4\sqrt{11zd}$$

A $12zd^2\sqrt{33z} - 4\sqrt{143zd}$

B $12zd^2\sqrt{33z} - 4d\sqrt{143zd}$

C $12zd^2\sqrt{33z} - 4d^2\sqrt{143zd}$

D $12zd^2\sqrt{33z} - 4d^3\sqrt{143zd}$

E $12z^{-1}d^2\sqrt{33z} - 4d^2\sqrt{143zd}$