



Radicals - Divide Binomials by Monomials (Values and Variables)

1 Divide the radical expressions and simplify the answer

$$\frac{\sqrt{11z} + z\sqrt{3z}}{z\sqrt{7}}$$

A $\frac{\sqrt{77} + z\sqrt{21z}}{7z^2}$

B $\frac{\sqrt{77z} + z\sqrt{21z}}{7z}$

C $\frac{\sqrt{77z} - z^2\sqrt{21z}}{7}$

D $\frac{\sqrt{77z} + z^3\sqrt{21z}}{14z}$

E $\frac{\sqrt{77z^{-1}} - z\sqrt{21z}}{7z^3}$

2 Divide the radical expressions and simplify the answer

$$\frac{d\sqrt{2d} + \sqrt{11d}}{\sqrt{11d}}$$

A $d\sqrt{22} - 1$

B $\frac{d\sqrt{22} + 11}{11}$

C $\frac{d^3\sqrt{22} - 11}{4}$

D $\frac{d\sqrt{22} + 11}{5}$

E $d\sqrt{22} + 5$

3 Divide the radical expressions and simplify the answer

$$\frac{y^2\sqrt{3} + \sqrt{3}}{y^2\sqrt{2}}$$

A $\frac{y^2\sqrt{6} + \sqrt{6}}{2y^2}$

B $\frac{y^2\sqrt{2} - \sqrt{2}}{2y^2}$

C $\frac{y^2\sqrt{3} + \sqrt{6}}{y^2}$

D $\frac{y^2\sqrt{6} + 5\sqrt{6}}{y^2}$

4 Divide the radical expressions and simplify the answer

$$\frac{m\sqrt{2} - m\sqrt{7}}{\sqrt{2}}$$

A $\frac{2m - m\sqrt{14}}{2}$

B $\frac{2m\sqrt{2} + m\sqrt{14}}{4}$

C $\frac{2m + m\sqrt{14}}{5}$

D $3m$

E $\frac{5m - m\sqrt{14}}{2}$

5 Divide the radical expressions and simplify the answer

$$\frac{b\sqrt{2b} - \sqrt{7}}{b^2\sqrt{2}}$$

A $\frac{4b\sqrt{b} + \sqrt{14}}{4b^2}$

B $\frac{2b + \sqrt{14}}{2}$

C $\frac{2b\sqrt{b} - \sqrt{14}}{2b^2}$

D $\frac{2\sqrt{b} - \sqrt{14}}{b^2}$

E $\frac{2b^{-1}\sqrt{b} + \sqrt{14}}{2b^4}$

6 Divide the radical expressions and simplify the answer

$$\frac{n\sqrt{11n} + n^2\sqrt{7}}{n\sqrt{3n}}$$

A $\frac{\sqrt{11} - n\sqrt{7}}{3}$

B $\frac{\sqrt{33} + \sqrt{21n}}{4}$

C $\sqrt{33} + n\sqrt{21n}$

D $\frac{\sqrt{33} + 4\sqrt{21n}}{3}$

E $\frac{\sqrt{33} + \sqrt{21n}}{3}$

7 Divide the radical expressions and simplify the answer

$$\frac{\sqrt{11x} + \sqrt{5x}}{\sqrt{3}}$$

A $\frac{\sqrt{33x} - \sqrt{15}}{3}$

B $\frac{\sqrt{33} - \sqrt{15x}}{4}$

C $\frac{\sqrt{33x} + \sqrt{15x}}{3}$

D $\frac{x\sqrt{33x} - \sqrt{15x}}{2}$

E $\sqrt{33x^{-1}} + \sqrt{15x}$

8 Divide the radical expressions and simplify the answer

$$\frac{y\sqrt{2y} + \sqrt{7}}{y\sqrt{2y}}$$

A $\frac{2y^2 + \sqrt{14y}}{2y^2}$

B $\frac{2y^2 - \sqrt{14y}}{2y^3}$

C $\frac{y^2 + \sqrt{14y}}{2y^2}$

D $\frac{2y + \sqrt{14y}}{2y}$

E $\frac{2y^3 + \sqrt{14y}}{2y^3}$