



Radicals - Divide Binomials by Monomials (Values and Variables)

1 Divide the radical expressions and simplify the answer

$$\frac{4zm\sqrt{2m} + z^2m^2\sqrt{2}}{5m^2\sqrt{5z}}$$

- | | |
|---|---|
| A $\frac{4\sqrt{10zm} + m^3z\sqrt{10z}}{25m}$ | B $4\sqrt{10z} + z\sqrt{10z}$ |
| C $\frac{\sqrt{10zm} - mz\sqrt{10z}}{25mz}$ | D $\frac{4\sqrt{10zm} + mz\sqrt{10z}}{25m}$ |
| E $\frac{4\sqrt{10zm} - mz^3\sqrt{10z}}{25m^2}$ | |

2 Divide the radical expressions and simplify the answer

$$\frac{5p^2\sqrt{3} + p^2b^2\sqrt{11}}{4pb\sqrt{3pb}}$$

- | | |
|--|--|
| A $\frac{15\sqrt{pb} + b\sqrt{33pb}}{b^2}$ | B $\frac{15\sqrt{pb} + b^2\sqrt{33pb}}{12p^{-1}b^2}$ |
| C $\frac{15\sqrt{pb} + b^2\sqrt{33pb}}{12b^2}$ | D $\frac{15\sqrt{pb} + b^2\sqrt{33pb}}{b^2}$ |

3 Divide the radical expressions and simplify the answer

$$\frac{mc\sqrt{2mc} - 2c\sqrt{11mc}}{4mc^2\sqrt{7m}}$$

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|--|--|
| A $\frac{m\sqrt{14c} - 2\sqrt{77c}}{28mc}$ | B $\frac{mc^{-1}\sqrt{14c} + 2\sqrt{77c}}{28m^3c}$ |
| C $\frac{m\sqrt{14c} - 2c\sqrt{77}}{28m}$ | D $\frac{m^2\sqrt{14c} + 2\sqrt{77c}}{mc}$ |
| E $\frac{m\sqrt{14c} + 3\sqrt{77c}}{mc}$ | |

4 Divide the radical expressions and simplify the answer

$$\frac{3y\sqrt{13y} - y^2\sqrt{13}}{2y\sqrt{7m}}$$

- | | |
|--|---|
| A $\frac{4\sqrt{91my} + y\sqrt{91m}}{m}$ | B $\frac{3\sqrt{91my} - y\sqrt{91m}}{14m}$ |
| C $\frac{3\sqrt{91my} + ym\sqrt{91}}{m}$ | D $\frac{3\sqrt{91my} - y\sqrt{91m^{-1}}}{m}$ |
| E $\frac{3\sqrt{91my} + y\sqrt{91}}{m}$ | |

5 Divide the radical expressions and simplify the answer

$$\frac{3c^2\sqrt{7r} + rc\sqrt{2}}{3\sqrt{2rc}}$$

- | | |
|--|--|
| A $\frac{3c\sqrt{42c} - \sqrt{3rc}}{18}$ | B $3c\sqrt{14c} + 2\sqrt{rc}$ |
| C $\frac{3c^{-1}\sqrt{14c} + 2\sqrt{rc}}{4}$ | D $\frac{3c\sqrt{14} - 2\sqrt{rc}}{2}$ |
| E $\frac{3c\sqrt{14c} + 2\sqrt{rc}}{6}$ | |

6 Divide the radical expressions and simplify the answer

$$\frac{3r^2\sqrt{5b} - r\sqrt{7b}}{3b^2r^2\sqrt{2}}$$

- | | |
|---|---|
| A $\frac{3r\sqrt{10b} - \sqrt{14b}}{6b^2r^3}$ | B $\frac{3r\sqrt{10} - \sqrt{14b}}{b^2r}$ |
| C $\frac{3r\sqrt{10b} - \sqrt{14b}}{6b^2r}$ | D $\frac{3r^3\sqrt{10b} + \sqrt{14b}}{6b^2r}$ |
| E $\frac{3r\sqrt{10b} - \sqrt{14b}}{6b^4r}$ | |

7 Divide the radical expressions and simplify the answer

$$\frac{2r\sqrt{5} - pr^2\sqrt{11}}{4pr\sqrt{13}}$$

- | | |
|---|---|
| A $\frac{2\sqrt{65} - r\sqrt{143}}{52pr}$ | B $\frac{2\sqrt{65} - pr}{52p}$ |
| C $\frac{2\sqrt{65} - pr\sqrt{143}}{52p}$ | D $\frac{4\sqrt{65} - pr\sqrt{143}}{p}$ |
| E $\frac{2\sqrt{65} - p\sqrt{143}}{p}$ | |

8 Divide the radical expressions and simplify the answer

$$\frac{dz\sqrt{5d} + 2\sqrt{5z}}{4d^2\sqrt{5z}}$$

- | | | | | |
|---------------------------------|---------------------------------|-----------------------------------|----------------------------------|--------------------------------|
| A $\frac{d\sqrt{zd} + 2}{4d^2}$ | B $\frac{d\sqrt{zd} - 2}{2d^2}$ | C $\frac{d^2\sqrt{zd} + 2}{4d^2}$ | D $\frac{d^2\sqrt{zd} + 2}{d^2}$ | E $\frac{d\sqrt{zd} + 2}{d^2}$ |
|---------------------------------|---------------------------------|-----------------------------------|----------------------------------|--------------------------------|