



Math worksheet on 'Radicals - Divide Binomials (Values Only) (Level 1)'. Part of a broader unit on 'Radicals - Division Intro'

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**1** Divide the radical expressions and simplify the answer

$$\frac{4 - \sqrt{3}}{3 + \sqrt{13}}$$

**a**  $\frac{12 + \sqrt{13} - 2\sqrt{3} + \sqrt{39}}{5}$

**b**  $\frac{1 - 4\sqrt{13} - \sqrt{3} - \sqrt{39}}{3}$

**c**  $\frac{12 - \sqrt{13} - 3\sqrt{3} + \sqrt{39}}{4}$

**d**  $12 - 4\sqrt{13} - 3\sqrt{3} + \sqrt{39}$

**e**  $\frac{12 - 4\sqrt{13} - 3\sqrt{3} + \sqrt{39}}{-4}$

**f**  $\frac{1 - \sqrt{13} + 3\sqrt{3} - \sqrt{39}}{4}$

**2** Divide the radical expressions and simplify the answer

$$\frac{5 + \sqrt{5}}{\sqrt{3} - 3}$$

**a**  $\frac{5\sqrt{3} + 15 + \sqrt{15} + 3\sqrt{5}}{-6}$

**b**  $\frac{5\sqrt{3} + 1 - \sqrt{15} + \sqrt{5}}{-6}$

**c**  $\frac{5\sqrt{3} - 1 + 3\sqrt{15} + 3\sqrt{5}}{3}$

**d**  $\frac{5\sqrt{3} + 2 + \sqrt{15} + 3\sqrt{5}}{-6}$

**e**  $\frac{\sqrt{3} + 15 + \sqrt{15} - 3\sqrt{5}}{-6\sqrt{3}}$

**f**  $\frac{5\sqrt{3} + 15 + \sqrt{3} + \sqrt{5}}{-6\sqrt{3}}$

**3** Divide the radical expressions and simplify the answer

$$\frac{2 - \sqrt{13}}{\sqrt{5} - 3}$$

**a**  $\frac{2\sqrt{5} + 1 - \sqrt{65} - \sqrt{13}}{-4}$

**b**  $2 - 6 - \sqrt{65} + 3\sqrt{13}$

**c**  $2\sqrt{5} - 6 + \sqrt{65} - 3\sqrt{13}$

**d**  $2\sqrt{5} + 6 - 4\sqrt{65} - 3\sqrt{13}$

**e**  $2\sqrt{5} + 1 - \sqrt{65} - \sqrt{13}$

**f**  $\frac{2\sqrt{5} + 6 - \sqrt{65} - 3\sqrt{13}}{-4}$

**4** Divide the radical expressions and simplify the answer

$$\frac{\sqrt{11} + 5}{\sqrt{13} - 3}$$

**a**  $2 + 3\sqrt{11} + 5\sqrt{13} + 15$

**b**  $\frac{\sqrt{143} + \sqrt{11} - 5\sqrt{13} + 15\sqrt{2}}{3}$

**c**  $\frac{\sqrt{143} + 3\sqrt{11} + 5\sqrt{13} + 15}{4}$

**d**  $\frac{\sqrt{143} + 3\sqrt{11} - 5\sqrt{13} + 4}{5}$

**e**  $\frac{\sqrt{143} + 3\sqrt{11} + 1 - 15}{2}$

**f**  $\sqrt{143} + 3\sqrt{11} + \sqrt{13} + 15$

**5** Divide the radical expressions and simplify the answer

$$\frac{5 - \sqrt{3}}{\sqrt{3} + 5}$$

**a**  $3\sqrt{3} + 14$

**b**  $\frac{5\sqrt{3} + 1}{3}$

**c**  $5\sqrt{3} + 1$

**d**  $\frac{5\sqrt{3} - 14}{-11}$

**e**  $\frac{5\sqrt{3} + 1}{4}$

**f**  $5\sqrt{3} - 14$

**6** Divide the radical expressions and simplify the answer

$$\frac{2 + \sqrt{3}}{\sqrt{2} - 4}$$

**a**  $\frac{2\sqrt{2} + 8 + \sqrt{6} + 4\sqrt{3}}{-14}$

**b**  $\frac{2\sqrt{2} - 8 + \sqrt{6} + \sqrt{3}}{5}$

**c**  $\frac{2\sqrt{2} + 8 - \sqrt{6} + \sqrt{3}}{5}$

**d**  $\frac{2 + 8 + \sqrt{6} + \sqrt{3}}{-14\sqrt{4}}$

**e**  $2 + 8 + 3\sqrt{6} - 4\sqrt{3}$

**f**  $2\sqrt{2} + 2\sqrt{4} + \sqrt{6} + 4\sqrt{3}$

**7** Divide the radical expressions and simplify the answer

$$\frac{4 - \sqrt{3}}{4 - \sqrt{5}}$$

**a**  $16 + \sqrt{5} - \sqrt{3} - \sqrt{15}$

**b**  $\frac{1 + 3\sqrt{5} - 4\sqrt{3} + \sqrt{15}}{2}$

**c**  $\frac{16 + 4\sqrt{5} - 4\sqrt{3} - \sqrt{15}}{11}$

**d**  $3 + 4\sqrt{5} - 3\sqrt{3} - \sqrt{15}$

**e**  $16\sqrt{2} + 4\sqrt{5} + \sqrt{3} - \sqrt{15}$

**f**  $\frac{16 + 4\sqrt{5} - \sqrt{3} - 5\sqrt{15}}{11\sqrt{2}}$