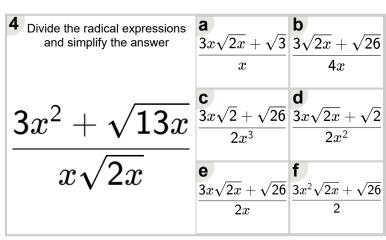**mobius**

Math worksheet on *'Radicals - Divide Binomials by Monomials (Values and Variables) (Level 1)'*. Part of a broader unit on *'Radicals - Division Intro'*
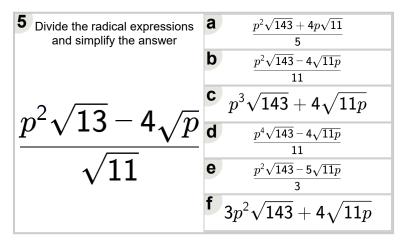
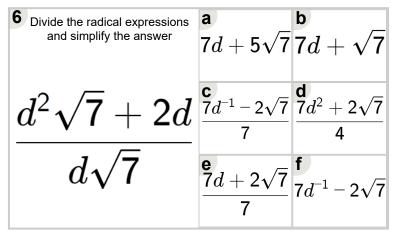Learn online: app.mobius.academy/math/units/radicals_division_intro/

1 Divide the radical expressions and simplify the answer

$$\frac{d\sqrt{5}+4}{\sqrt{2d}}$$

a	b
$\frac{d\sqrt{10d}+4d\sqrt{2}}{2}$	$\frac{d\sqrt{10d}+4\sqrt{2d}}{2d^{-1}}$

c	d
$\frac{d\sqrt{10d^{-1}}+4\sqrt{2d}}{2d^2}$	$\frac{d\sqrt{10d}+3\sqrt{2d}}{2d}$

e	f
$\frac{d\sqrt{10d}+\sqrt{2d}}{2d^{-1}}$	$\frac{d\sqrt{10d}+4\sqrt{2d}}{2d}$

2 Divide the radical expressions and simplify the answer

$$\frac{\sqrt{11p}-4p\sqrt{p}}{p^2\sqrt{3}}$$

a	b
$\frac{\sqrt{33p}-4p^3\sqrt{3p}}{p^2}$	$\frac{\sqrt{33p}-4p^{-1}\sqrt{3p}}{p^2}$

c	d
$\frac{\sqrt{33p}-4p\sqrt{p}}{p^2}$	$\frac{\sqrt{33p}-4p\sqrt{p}}{4p^2}$

e	f
$\frac{\sqrt{33p}+4p\sqrt{3p}}{5p^2}$	$\frac{\sqrt{33p}-4p\sqrt{3p}}{3p^2}$

3 Divide the radical expressions and simplify the answer

$$\frac{2c+c^2\sqrt{5}}{\sqrt{2c}}$$

a	b
$\frac{2\sqrt{2c}+c\sqrt{10c}}{2}$	$2c\sqrt{2}+c\sqrt{10c}$

c	d
$\frac{2\sqrt{2}-c\sqrt{10c}}{5}$	$\frac{2\sqrt{2c}-c^2\sqrt{10c}}{4}$

e	f
$\frac{2\sqrt{2c}-c\sqrt{10c}}{4}$	$2\sqrt{2}+c\sqrt{10c}$

4 Divide the radical expressions and simplify the answer

$$\frac{3x^2+\sqrt{13x}}{x\sqrt{2x}}$$

a	b
$\frac{3x\sqrt{2x}+\sqrt{3}}{x}$	$\frac{3\sqrt{2x}+\sqrt{26}}{4x}$

c	d
$\frac{3x\sqrt{2}+\sqrt{26}}{2x^3}$	$\frac{3x\sqrt{2x}+\sqrt{2}}{2x^2}$

e	f
$\frac{3x\sqrt{2x}+\sqrt{26}}{2x}$	$\frac{3x^2\sqrt{2x}+\sqrt{26}}{2}$

5 Divide the radical expressions and simplify the answer

$$\frac{p^2\sqrt{13}-4\sqrt{p}}{\sqrt{11}}$$

a	$\frac{p^2\sqrt{143}+4p\sqrt{11}}{5}$
b	$\frac{p^2\sqrt{143}-4\sqrt{11p}}{11}$
c	$p^3\sqrt{143}+4\sqrt{11p}$
d	$\frac{p^4\sqrt{143}-4\sqrt{11p}}{11}$
e	$\frac{p^2\sqrt{143}-5\sqrt{11p}}{3}$
f	$3p^2\sqrt{143}+4\sqrt{11p}$

6 Divide the radical expressions and simplify the answer

$$\frac{d^2\sqrt{7}+2d}{d\sqrt{7}}$$

a	b
$7d+5\sqrt{7}$	$7d+\sqrt{7}$

c	d
$\frac{7d^{-1}-2\sqrt{7}}{7}$	$\frac{7d^2+2\sqrt{7}}{4}$

e	f
$\frac{7d+2\sqrt{7}}{7}$	$7d^{-1}-2\sqrt{7}$

7 Divide the radical expressions and simplify the answer

$$\frac{5\sqrt{m}+m\sqrt{13m}}{\sqrt{5m}}$$

a	$5+m\sqrt{65}$	b	$\frac{\sqrt{10}-m\sqrt{130}}{10}$
c	$\frac{5+m\sqrt{65}}{2}$	d	$\frac{5\sqrt{5}+m\sqrt{65}}{5}$
e	$\frac{5\sqrt{5}-m}{5}$	f	$\frac{5+m\sqrt{65}}{10}$