



Math worksheet on 'Radicals - Multiplying Monomials with Binomials (Values and Variables) (Level 3)'. Part of a broader unit on 'Radicals - Multiplication Intro'

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2 Multiply the radical expressions and simplify the answer

$$(d^2n\sqrt{5} + 3d^2\sqrt{5}) \cdot dn^2\sqrt{5}$$

a	$15d^3n^3 + 15d^3n^2$	b	$20d^3n^3$
c	$5d^3n^3 + 15d^3n^2$	d	$20d^3n^2$
e	$5d^3n^3 + 15d^4n^2$		

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$$mz\sqrt{2z} \cdot (\sqrt{11z} + 2mz^2\sqrt{13m})$$

Multiply the radical expressions and simplify the answer

a	b	c	d	e
$mz^2\sqrt{22} + 2m^2z^4\sqrt{26zm}$	$m^{-1}z^2\sqrt{22} + 2m^2z^3\sqrt{26zm}$	$mz^2\sqrt{22} + 2m^2z^3\sqrt{26zm}$	$m\sqrt{22} + 2m^2z^3\sqrt{26zm}$	$mz^2 + 2m^2z^3\sqrt{26zm}$

6 Multiply the radical expressions and simplify the answer

$$(2d^2n^2\sqrt{3} + dn^2\sqrt{2}) \cdot dn\sqrt{5}$$

a	$2d^3n^3\sqrt{15} + d^2n^4\sqrt{10}$	b	$2d^3n^3\sqrt{15} + n^3\sqrt{10}$
c	$2d^3n^3\sqrt{15} + 5d^2n^3\sqrt{10}$	d	$2d^3n^3\sqrt{15} + d^2n^3\sqrt{10}$
e	$2d^2n^3\sqrt{15} + d^2n^3\sqrt{10}$		

1 Multiply the radical expressions and simplify the answer

$$(x\sqrt{13} + 3\sqrt{5y}) \cdot y\sqrt{3xy}$$

a	$yx\sqrt{xy} + 3y^2\sqrt{15x}$	b	$yx\sqrt{39xy} + 3y\sqrt{15xy}$
c	$yx\sqrt{39xy} + 3y^2x\sqrt{15}$	d	$yx\sqrt{39xy} + 3y^2\sqrt{15x}$

3 Multiply the radical expressions and simplify the answer

$$pr\sqrt{11pr} \cdot (3\sqrt{11r} + p^2r^2\sqrt{2})$$

a	$33pr^2\sqrt{p} + p^4r^3\sqrt{22pr}$	b	$33pr^2\sqrt{p} + p^3r^3\sqrt{22pr^{-1}}$
c	$33pr^2\sqrt{p} + p^3r^3\sqrt{22p^{-1}r}$	d	$33pr^2\sqrt{p} + p^3r^3\sqrt{22pr}$
e	$33pr^2\sqrt{p} + p^4r^3\sqrt{22r}$		

5 Multiply the radical expressions and simplify the answer

$$(mp\sqrt{2p} + 3p^2\sqrt{5}) \cdot p^2\sqrt{3m}$$

a	$p^3m\sqrt{6mp^{-1}} + 3p^4\sqrt{15m}$	b	$p^3m\sqrt{6mp} + 3p^4\sqrt{15m}$
c	$p^3m^2\sqrt{6mp} + 3p^4\sqrt{15m}$	d	$p^3m^3\sqrt{6mp} + 3p^4\sqrt{15m}$
e	$pm\sqrt{6mp} + 3p^4\sqrt{15m}$		

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$$(3m^2d^2\sqrt{3} + m^2d\sqrt{13d}) \cdot d^2\sqrt{13m}$$

Multiply the radical expressions and simplify the answer

a	b	c	d	e
$3d^4m^2\sqrt{39m} + 13d^3m^2\sqrt{md}$	$3d^4m^2\sqrt{39m} + 13d^3m^2\sqrt{md^{-1}}$	$3d^4m^2\sqrt{39m} + 13d^3m^2\sqrt{m}$	$3d^4\sqrt{39m} + 13d^3m^2\sqrt{md}$	$3d^4m^2\sqrt{m} + 13d^3m^2\sqrt{md}$