



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

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

$$\sqrt{8z^2r^3} \cdot \sqrt{112z^2r^4}$$

<b>a</b>	$8z^2r^3\sqrt{14r}$	<b>b</b>	$8z^2r^2\sqrt{14r}$
<b>c</b>	$z^2r^3\sqrt{r}$	<b>d</b>	$40z^2r^3\sqrt{14r}$

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

$$\sqrt{75p^4x^2} \cdot \sqrt{32p^2}$$

<b>a</b>	$20p^3x^2\sqrt{6}$	<b>b</b>	$p^3x$
<b>c</b>	$20p^3x\sqrt{6}$	<b>d</b>	$20p^3\sqrt{6}$

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

$$\sqrt{80r^3b} \cdot \sqrt{20r^2b^4}$$

<b>a</b>	$40r^2b^3\sqrt{r}$	<b>b</b>	$40r^2b^2\sqrt{r}$
<b>c</b>	$40r^2b^2\sqrt{rb}$	<b>d</b>	$r^2b^2\sqrt{rb}$

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

$$\sqrt{32c^3} \cdot \sqrt{125n^3}$$

<b>a</b>	$60cn\sqrt{10cn}$	<b>b</b>	$40cn\sqrt{10cn}$
<b>c</b>	$20cn^2\sqrt{10cn}$	<b>d</b>	$20cn\sqrt{10cn}$

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

$$\sqrt{44c^3} \cdot \sqrt{27}$$

<b>a</b>	$6c^2\sqrt{33}$	<b>b</b>	$6\sqrt{33c}$	<b>c</b>	$c\sqrt{c}$	<b>d</b>	$6c\sqrt{33c}$

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

$$\sqrt{112r^2} \cdot \sqrt{44r^4m}$$

<b>a</b>	$r^3\sqrt{m}$	<b>b</b>	$8r^3\sqrt{77rm}$
<b>c</b>	$8r^3\sqrt{77}$	<b>d</b>	$8r^3\sqrt{77m}$
<b>e</b>	$32r^3\sqrt{77m}$		

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

$$\sqrt{8r^2c^3} \cdot \sqrt{125rc^3}$$

<b>a</b>	$10rc^2\sqrt{10r}$	<b>b</b>	$10c^3\sqrt{10r}$
<b>c</b>	$10rc^3\sqrt{10r}$		