

HOMWORK SOLUTIONS...

Worksheet - Simplifying Radicals (Square Roots).pdf

Largest Perfect Square

$$\sqrt{a \times b} = \sqrt{a} \times \sqrt{b}$$

1) $\sqrt{96}$

$$\begin{aligned} &\sqrt{16 \times 6} \\ &\sqrt{16} \times \sqrt{6} \\ &4\sqrt{6} \end{aligned}$$

2) $\sqrt{216}$

$$\begin{aligned} &\sqrt{36 \times 6} \\ &\sqrt{36} \times \sqrt{6} \\ &6\sqrt{6} \end{aligned}$$

3) $\sqrt{98}$

$$\begin{aligned} &\sqrt{49 \times 2} \\ &\sqrt{49} \times \sqrt{2} \\ &7\sqrt{2} \end{aligned}$$

4) $\sqrt{18}$

$$\begin{aligned} &\sqrt{9 \times 2} \\ &\sqrt{9} \times \sqrt{2} \\ &3\sqrt{2} \end{aligned}$$

5) $\sqrt{72}$

$$\begin{aligned} &\sqrt{36 \times 2} \\ &6\sqrt{2} \end{aligned}$$

6) $\sqrt{144}$

$$12$$

7) $\sqrt{45}$

$$\begin{aligned} &\sqrt{9 \times 5} \\ &3\sqrt{5} \end{aligned}$$

8) $\sqrt{175}$

$$\begin{aligned} &\sqrt{25 \times 7} \\ &5\sqrt{7} \end{aligned}$$

9) $\sqrt{343}$

$$\begin{aligned} &\sqrt{49 \times 7} \\ &\sqrt{49} \times \sqrt{7} \\ &7\sqrt{7} \end{aligned}$$

10) $\sqrt{12}$

$$\begin{aligned} &\sqrt{4 \times 3} \\ &2\sqrt{3} \end{aligned}$$

11) $10\sqrt{96}$

$$\begin{aligned} &10\sqrt{16 \times 6} \\ &10 \times \sqrt{16} \times \sqrt{6} \\ &10 \times 4\sqrt{6} \\ &40\sqrt{6} \end{aligned}$$

12) $9\sqrt{245}$

$$\begin{aligned} &9\sqrt{49 \times 5} \\ &9\sqrt{49} \times \sqrt{5} \\ &9 \times 7\sqrt{5} \\ &63\sqrt{5} \end{aligned}$$

13) $7\sqrt{600}$

$7\sqrt{100 \times 6}$

$7\sqrt{100} \times \sqrt{6}$

$7 \times 10 \sqrt{6}$

$70\sqrt{6}$

15) $5\sqrt{180}$

$5\sqrt{36 \times 5}$

$5 \times 6\sqrt{5}$

$30\sqrt{5}$

17) $2\sqrt{36}$

2×6

12

14) $5\sqrt{45}$

$5\sqrt{9 \times 5}$

$5 \times 3\sqrt{5}$

$15\sqrt{5}$

16) $3\sqrt{405}$

$3\sqrt{81 \times 5}$

$3 \times 9\sqrt{5}$

$27\sqrt{5}$

18) $9\sqrt{125}$

$9\sqrt{25 \times 5}$

$9 \times 5\sqrt{5}$

$45\sqrt{5}$

19) $8\sqrt{27}$

$8\sqrt{9 \times 3}$

$8 \times \sqrt{9} \times \sqrt{3}$

$8 \times 3 \times \sqrt{3}$

$24\sqrt{3}$

21) $3\sqrt{900}$

3×30

90

20) $12\sqrt{1764}$

12×142

504

22) $7\sqrt{2535}$

$7\sqrt{169 \times 15}$

$7 \times 13\sqrt{15}$

$91\sqrt{15}$

23) $11\sqrt{1215}$

$11\sqrt{81 \times 15}$

$11 \times \sqrt{81} \times \sqrt{15}$

$11 \times 9 \times \sqrt{15}$

$99\sqrt{15}$

24) $2\sqrt{200}$

$2\sqrt{100 \times 2}$

$2 \times 10\sqrt{2}$

$20\sqrt{2}$

Attachments

Image (19).jpg

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Worksheet - Simplifying Radicals (Square Roots).pdf

Review - Laws of Exponents.pdf

Review - Laws of Exponents (Grade 9).pdf

Review Solutions - Laws of Exponents (Grade 9).pdf

Warm Up - Laws of Exponents.pdf

Assignment - Radicals and Exponent Laws Feb. 2014.pdf