Homework

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Questions:

10 a d g

11 a c e

17

Lets go over homework: Next few slides are homework answers

10) $\sqrt{90}$

$\sqrt{9 \times 10}$

$\sqrt{9}\sqrt{10}$

$3\sqrt{10}$

d) $\sqrt{600}$

$\sqrt{100 \times 6}$

$\sqrt{100}\ \sqrt{6}$

$10\sqrt{6}$

g) $\sqrt{28}$

$\sqrt{(4)\cdot(7)}$

$\sqrt{4}\ \sqrt{7}$

$2\sqrt{7}$

11 a c e

11 a) $\sqrt[3]{16}$

$\sqrt[3]{8 \cdot 2}$

$\sqrt[3]{8} \quad \sqrt[3]{2}$

$2\sqrt[3]{2}$

c) $\sqrt[3]{256}$

$\sqrt[3]{(64)\cdot(4)}$

$\sqrt[3]{64} \quad \sqrt[3]{4}$

$4\sqrt[3]{4}$

e) $\sqrt[3]{60}$

17) $\sqrt[4]{48}$

$\sqrt[4]{(16)\cdot(3)}$

$\sqrt[4]{16}$ $\sqrt[4]{3}$

$2\sqrt[4]{3}$

17 b) $\sqrt[4]{405}$

$\sqrt[4]{81 \times 5}$

$\sqrt[4]{81} \quad \sqrt[4]{5}$

$3\sqrt[4]{5}$

c) $\sqrt[4]{1250}$

$\sqrt[4]{(625)(2)} = \sqrt[4]{625}\ \sqrt[4]{2}$

$5\sqrt[4]{2}$

d) $\sqrt[4]{176}$

$\sqrt[4]{16 \times 11}$

$\sqrt[4]{16}$ $\sqrt[4]{11}$

$2\sqrt[4]{11}$

Entire Radicals
(mixed ⇒ entire)

mixed → entire

$$a\sqrt[n]{b} \rightarrow \sqrt{(a^n)^* b}$$

Express as an entire radical.

$$2\sqrt[4]{7}$$

What if we wanted to reverse this process?

- Changing a MIXED radical to an ENTIRE radical

$3\sqrt{5} =$

$\sqrt{3^2 \times 5}$

$\sqrt{9 \times 5}$

$\sqrt{45}$

$4\sqrt{2} =$

$\sqrt{16 \times 2}$

$\sqrt{32}$

$2\sqrt[3]{3} =$

$\sqrt[3]{2^3 \times 3}$

$\sqrt[3]{24}$

$3\sqrt[5]{4} =$

$\sqrt[5]{3^5 \times 4}$

$\sqrt[5]{972}$

Check-Up Time... Quiz will be on Monday

1. Express each of the following as a MIXED radical in SIMPLEST form:

$(a)\sqrt{48}$ $(b)\sqrt[3]{24}$ $(c)\sqrt[3]{-81}$ $(d)5\sqrt[4]{162}$

2. Express each of the following as an ENTIRE radical:

$(a)3\sqrt{5}$ $(b)-4\sqrt{3}$ $(c)2\sqrt[3]{9}$ $(d)2\sqrt[5]{27}$

$\sqrt{3^2 \cdot 5}$

$\sqrt{9 \cdot 5}$

$\sqrt{45}$

$-\sqrt{48}$

$\sqrt[3]{2^3 \times 9}$

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

$\sqrt[3]{72}$

$\sqrt[5]{864}$

Express as an entire radical.

$3\sqrt{5} = \sqrt{3^2 \times 5}$

$= \sqrt{9 \times 5}$

$= \sqrt{45}$

mixed → entire

$$2\sqrt[3]{10} = \sqrt[3]{2^3 \times 10}$$

$$= \sqrt[3]{8 \times 10}$$

$$= \sqrt[3]{80}$$

entire → mixed

$\sqrt[3]{80} = \sqrt[3]{8 \times 10}$

$\sqrt[3]{8} \quad \sqrt[3]{10}$

$2\sqrt[3]{10}$

$\sqrt[3]{16} = 8$

$2 \times 2 \times 2 = 8$

$2^3 = 8$

How am I doing so far??? Ready for the quiz???

- Need some more practice...

Summative Review

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11 d bf

12 d b F hj

l 8 a c

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