

# Homework

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10 a d g

Questions:

11 a c e

17

Lets go over  
homework: Next  
few slides are  
homework  
answers

$$\begin{aligned}
 10) \quad & \boxed{\sqrt{90}} \\
 & \sqrt{9 \times 10} \\
 & \sqrt{9} \sqrt{10} \\
 & \boxed{3\sqrt{10}}
 \end{aligned}$$

$$\begin{aligned}
 d) \quad & \sqrt{600} \\
 & \sqrt{100 \times 6} \\
 & \sqrt{100} \sqrt{6} \\
 & 10\sqrt{6}
 \end{aligned}$$

$$\begin{aligned}
 g) \quad & \sqrt{28} \\
 & \sqrt{(4) \cdot (7)} \\
 & \sqrt{4} \sqrt{7} \\
 & \boxed{2\sqrt{7}}
 \end{aligned}$$

11 a c e

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

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

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

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

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

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

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

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

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

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

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

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

$$2\sqrt[4]{3}$$

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

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

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

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

$$c) \sqrt[4]{1256}$$

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

$$\boxed{5 \sqrt[4]{2}}$$

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

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

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

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

$$2 \sqrt[4]{11}$$

$$1 \times 1 \times 1 \times 1 = 1$$

$$1^4$$

$$2 \times 2 \times 2 \times 2 = 16$$

$$2^4$$

$$3 \times 3 \times 3 \times 3 =$$

$$3^4$$

Express as a  
reduced  
mixed radical.

$$5\sqrt{18}$$

$$\begin{aligned} &5\sqrt{9 \cdot 2} \\ &5\sqrt{9}\sqrt{2} \\ &5(3)\sqrt{2} \\ &15\sqrt{2} \end{aligned}$$

$$\begin{aligned} &4\sqrt[3]{54} \\ &4\sqrt[3]{27 \cdot 2} \\ &4\sqrt[3]{27}\sqrt[3]{2} \\ &4(3)\sqrt[3]{2} \\ &12\sqrt[3]{2} \end{aligned}$$

Entire Radicals  
(mixed  $\Rightarrow$  entire)

mixed		entire
$a\sqrt[n]{b}$	$\rightarrow$	$\sqrt[n]{(a^n) \cdot b}$

Express as an entire radical.

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

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

$$\sqrt[4]{16 \cdot 7}$$

$$\sqrt[4]{112}$$

Express as an entire radical.

$$3\sqrt{5}$$

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

$$\sqrt{9 \cdot 5}$$

$$\sqrt{45}$$

mixed  $\rightarrow$  entire

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

$$\sqrt[3]{2^3 \cdot 10}$$

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

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

entire  $\rightarrow$  mixed

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

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

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

$$2\sqrt[3]{10}$$

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11 d bf

10 a d g

12 d b F hj

11 a c e

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18 a c

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