

March 10, 2015

$$\sqrt{25} = \sqrt{(5)^2}$$

$$= 5$$

$$\sqrt{50} = \sqrt{25 \cdot 2}$$

$$= \sqrt{25} \cdot \sqrt{2}$$

$$= \sqrt{(5)^2} \cdot \sqrt{2}$$

$$\sqrt{50} = 5 \cdot \sqrt{2}$$

$$= \boxed{5\sqrt{2}}$$

$$\sqrt{50} \neq \sqrt{49+1}$$

$$\neq 7\sqrt{1}$$

$$\neq 7 \cdot 1 = 7$$

Mar 10-10:51 AM

Mar 10-11:15 AM

$$\sqrt{66} = \sqrt{(\text{?})^2}$$

$$= \sqrt{\cancel{11} \cdot 6}$$

$$= \sqrt{66}$$

Mar 10-11:15 AM

$$\sqrt{180} = \sqrt{36 \cdot 5}$$

$$= \sqrt{(6)^2 \cdot 5}$$

$$= 6\sqrt{5}$$

$$6\sqrt{5} = \sqrt{6^2 \cdot 5}$$

$$= \sqrt{36 \cdot 5}$$

$$= \sqrt{180}$$

Mar 10-11:20 AM

$$9 \cdot \sqrt{6} = \sqrt{9^2 \cdot 6}$$

$$= \sqrt{81 \cdot 6}$$

$$= \sqrt{486}$$

Mar 10-11:26 AM

$$\sqrt{x^2} = \sqrt{x \cdot x}$$

How many groups of 2 x's do we have?

ans.: one group of 2 x's.

$$= x$$

$$\sqrt{x^2} = \sqrt{(x^1)^2}$$

$$= x$$

$$(x^1)^2 = x^1 \cdot x^1$$

$$= x_{1+1}$$

$$= x^2$$

Mar 10-11:28 AM

$$\sqrt{x^{93}} = \sqrt{(x^{46})^2 \cdot x}$$

$$= x^{46} \sqrt{x}$$

$$\frac{93}{2} =$$

$$2 \overline{) 93}$$

$$\underline{8}$$

$$13$$

$$2 \cdot 46 = 92$$

Mar 10-11:31 AM

$$\sqrt{48y^{19}} = \sqrt{16 \cdot 3 \cdot (y)^2 \cdot y}$$

$$= \sqrt{(4)^2 \cdot 3 \cdot (y)^2 \cdot y}$$

$$= 4y \sqrt{3y}$$

Mar 10-11:35 AM

$$\sqrt[3]{108x^{22}} = \sqrt[3]{27 \cdot 4 \cdot (x^7)^3 \cdot x}$$

$$= \sqrt[3]{(3)^3 \cdot 4 \cdot (x^7)^3 \cdot x}$$

$$= 3x^7 \sqrt[3]{4x}$$

$$3 \overline{) 22}$$

$$\underline{21}$$

$$1$$

Mar 10-11:40 AM

$$\sqrt[4]{t^9} = \sqrt[4]{(t^2)^4 \cdot t}$$

$$= t^2 \sqrt[4]{t}$$

Mar 10-11:45 AM

$$\sqrt[3]{125x^{13}} = \sqrt[3]{(5)^3 \cdot (x^4)^3 \cdot x}$$

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

Mar 10-11:47 AM