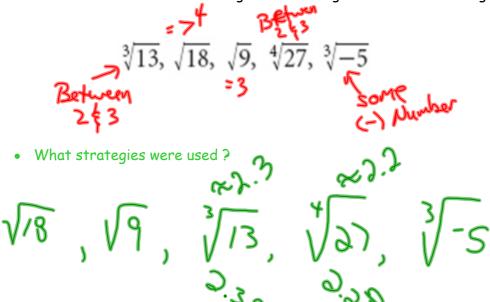
• Without the aid of a calculator arrange the following radicals in descending order:



Pre-requisite skill...

Solve this inequation:
$$4x + 5 > 9x - 10$$

$$5 \times > -15$$

$$-5 \times > -25$$

$$3 > \chi$$

Let's revisit restrictions...

State any restrictions on the following radicals:

$$\sqrt{3x+5}$$

$$3x+5$$

$$\sqrt[5]{4-x}$$

• Simplifying Radicals

Required prior knowledge:

- Expressing radicals as exponents

$$\sqrt{\chi} \rightarrow \chi^{\frac{1}{2}}$$

$$= 4$$

$$\sqrt{\chi} \rightarrow \chi^{\frac{1}{2}}$$

$$= \sqrt{\chi}$$

$$\sqrt{\chi}^{9} = \chi^{9/5} = (\sqrt{5}\chi)$$

$$= \sqrt{\chi}^{9}$$

$$= \sqrt{\chi}$$

$$\omega^{\circ} = |$$

$$3\omega^{\circ} = 3(1)$$

$$(3\omega)^{\circ} = |$$

- Converting radicals between forms (Mixed <--> Entire)

$$9\sqrt{50}$$
 $\sqrt{12}$
 $\sqrt{4x^3}$
 $\sqrt{72} = 6\sqrt{2}$
 $\sqrt{12}$
 $\sqrt{9}\sqrt{50}$
 $\sqrt{12}$
 $\sqrt{50}$
 $\sqrt{9xB}$
 $\sqrt{9xB}$
 $\sqrt{9xB}$
 $\sqrt{12}$
 $\sqrt{9xB}$
 $\sqrt{9xB}$
 $\sqrt{12}$
 $\sqrt{9xB}$
 $\sqrt{12}$
 $\sqrt{9xB}$
 $\sqrt{12}$
 $\sqrt{9xB}$
 $\sqrt{12}$
 $\sqrt{12}$
 $\sqrt{9xB}$
 $\sqrt{12}$
 $\sqrt{12$

= 3/40

Simplifying radicals involving variables:

$$\sqrt{x^{16}} = \left(x^{16}\right)^{\frac{1}{2}} \qquad \sqrt[3]{w^{27}} = \left(\omega^{27}\right)^{\frac{1}{3}} \qquad \sqrt[3]{32y^{10}} \qquad \sqrt[4]{9}$$

$$= \chi^{8} \qquad = \omega^{9} \qquad = 2\chi^{9}$$

What if things do not work out as nicely??

What it things do not work out as filterly?
$$\sqrt{x^{11}} \qquad \sqrt{27x^6y^5}$$

$$\sqrt{x^{1}} \qquad \sqrt{y^{2}}$$

$$\sqrt{x^{1}} \qquad \sqrt{y^{2}}$$

$$\sqrt{x^{2}} \qquad \sqrt{y^{2}}$$

$$\sqrt{x$$

$$\frac{2}{\sqrt[4]{16a^5b^{18}}}$$

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

$$\sqrt[3]{-9} = -2$$

Homework:

Page 278

#1 - 6