

Bellwork: Algebra 1

1. Woohoo it's Friday!!! :)
2. Take out your homework.
3. Algebra Nation Test Yourself Section 5 Due Monday
4. You need a calculator.
5. Answer the following question on your FRIDAY

Bellwork:

A penny is dropped off the Empire State Building, which is 1,250 feet tall. If the penny's pathway can be modeled by the equation $h = -16t^2 + 1250$, how long would it take the penny to strike a 6-foot tall person?

$h = 6$ ft person
 $t = ?$ second

$$\begin{array}{r} 6 = -16t^2 + 1250 \\ -1250 \qquad \qquad -1250 \end{array}$$

$$\frac{-1244}{-16} = \frac{-16t^2}{-16}$$

$$\sqrt{77.75} = \sqrt{t^2}$$

$$\rightarrow \oplus \sqrt{77.75} = t$$

time

$$\sqrt{77.75} = t$$

$$8.8 \text{ secs} = t$$

$$\begin{array}{r} -x^2 + 15x = 73 - 3x \\ \quad + 3x \qquad \qquad \quad + 3x \end{array}$$

$$-x^2 + 18x = 73$$

$$-1(x^2 - 18x + \underline{81}) = 73 + \underline{-81}$$

$$\frac{-18}{2} = (-9)^2$$

$$\frac{-1(x-9)^2}{-1} = \frac{-8}{-1}$$

$$(x-9)^2 = 8 \quad \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$