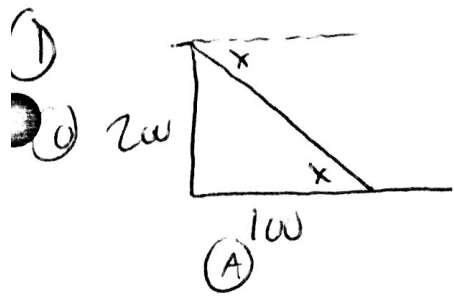
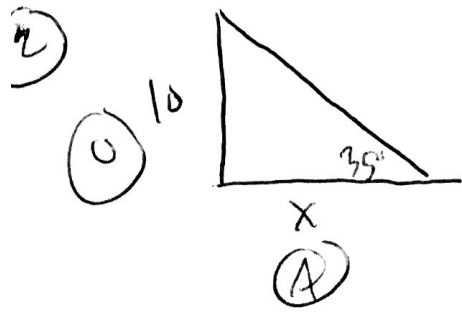


# Geo HW 3-3



$$\tan x = \frac{200}{100}$$

$\boxed{\tan^{-1}} \left( \frac{200}{100} \right) \rightarrow 63.4^\circ$

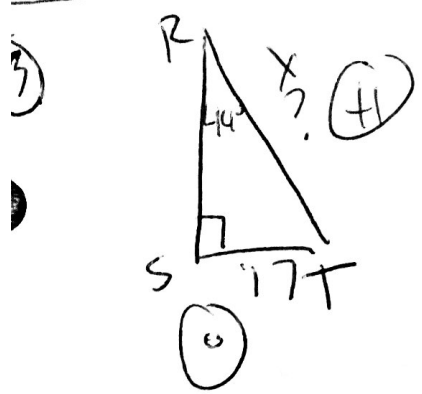


$$\tan 35 = \frac{10}{x}$$

$$\tan 35(x) = 10$$

$$x = \frac{10}{\tan(35)}$$

$\boxed{x = 14.3}$



$$\sin 44 = \frac{17}{x}$$

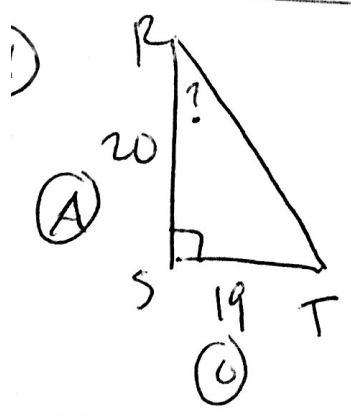
$$x = \frac{17}{\sin(44)}$$

$\boxed{x = 24.5 \text{ ft}}$

$$\sin 44 = \frac{204}{x}$$

$$x = \frac{204}{\sin 44}$$

$\boxed{x = 293.7 \text{ in}}$



$$\tan R = \frac{19}{20}$$

$\boxed{R = 43.5^\circ}$

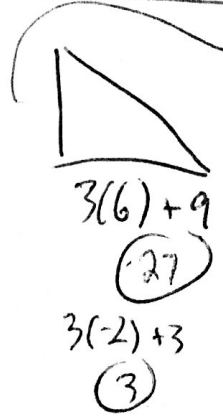
legs  $10 \times 5 \Delta =$

$$x^2 - x - 3 = 3x + 9$$

$$x^2 - 4x - 12 = 0$$

$$(x-6)(x+2)$$

$\underline{x=6}$   $\underline{x=-2}$



$\rightarrow 6^2 - 6 - 3$  or  $(-2)^2 - (-2) - 3$

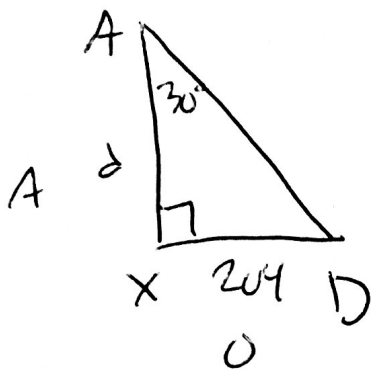
$\boxed{27}$

$$27^2 + 27^2 = x^2$$

$\boxed{x = \sqrt{1458}}$

$3^2 + 3^2 = x^2 \rightarrow \boxed{x = \sqrt{18}}$

6)

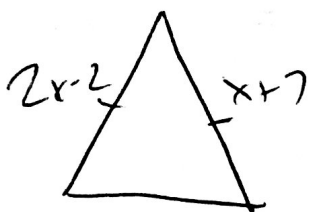


$$\tan 30 = \frac{204}{d}$$

$$d = \frac{204}{\tan 30}$$

$$d = 353.3$$

7)



\* legs isos  $\Delta \cong$

$$2x-2 = x+7$$

$$x = 9$$

$$9+7 = 16$$

$$16-16 = 0$$

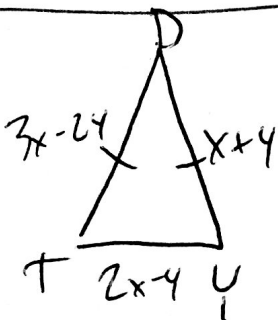
$$16+16 = 32$$

but must be at least  $\frac{1}{2}$

$$\frac{1}{2}(16) = 8$$

$$8 \leq 3rd\ side < 32$$

8)



\* legs isos  $\Delta \cong$

$$3x-24 = x+4$$

$$2x = 28$$

$$x = 14$$

$$14+14 = 28\ legs$$

$$2(14)-4 = 24$$

$$18+18+24 = 60$$

9)

$$5x^2 - 4x - 7 = 0$$

$$+7 \quad +1$$

$$\frac{5x^2}{5} - \frac{4x}{5} = \frac{7}{5}$$

$$x^2 - \frac{4}{5}x = \frac{7}{5}$$

$$\frac{-\frac{4}{5}}{2} = \left(\frac{-2}{5}\right)^2 = \frac{4}{25}$$

$$x^2 - \frac{4}{5}x + \frac{4}{25} = \frac{7}{5} + \frac{4}{25}$$

$$\left(x - \frac{2}{5}\right)^2 = \frac{34}{25}$$

$$x - \frac{2}{5} = \pm \sqrt{\frac{34}{25}}$$

$$x = \frac{2}{5} \pm \sqrt{\frac{34}{25}}$$