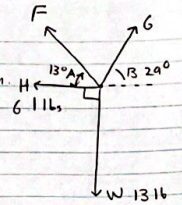
1-9-1 Practice



A: Magnitude of F?

given.

A = 13° W = 13 lb
B = 29 H = 6.1 lbs.

	X	Y	Dir.	Mag.
F	F cos 13	F sin 13	13° ↖	
G	G cos 29	G sin 29	29° ↗	
W		-13	0	-13.0
H	-6.1		0	-6.1 lbs

X: $-F\cos 13 + G\cos 29 - 6.1 = 0$

Y: $F\sin 13 + G\sin 29 - 13 = 0$.

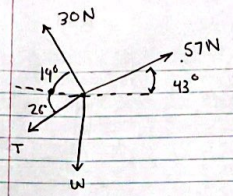
$$\frac{-G\cos 29}{\cos 29} = \frac{-F\cos 13 - 6.1}{\cos 29} = \boxed{-8.08}$$

x-com

$$\left[F\sin 13 + \left(\frac{-F\cos(13) - 6.1}{\cos 29}\right)\sin(29) + B = 0\right] \quad x = 21.4$$

$$F\sin 13 - 8.08\sin 29 - 13 = 0$$

$$\frac{F\sin 13}{\sin 13} = \frac{+5.88\sin 29 - 13}{\sin 13} = F = \boxed{-54.4}$$



Isaac Abeller.

Find Magnitude of W

	X	Y	Direction
W	0?	0?	0 ↓
T	X cos(26)	Y sin(26)	26° ↙
P_1	-30 cos(19)	30 sin(19)	19° ↖
P_2	+57 cos(43)	57 sin(43)	43° ↗

$F_x = T\cos(26) = -30\cos(19) + 57\cos(43) + 0$

$$T = \frac{70.1}{-\cos(26)} = \boxed{14.8}$$

magnitude

$F_y = 0$ all values so

$F_y = T\sin(26) = 30\sin 19 + 57\sin(43)$

$T = 110.9$

Find W

$F_y = -W + 14.8\sin(26) + 30 + 57$

$-W = 14.8\sin 26 - 30 - 57 =$

What is F Mag?

X: $-F\cos 13 + G\cos 29 - 6.1 = 0$

Y: $F\sin 13 + G\sin 29 - 13 = 0$.

$F\cos(13) - 6.1 = G\cos(29)$

$$\frac{F\cos(13) - 6.1}{\cos(29)} = G$$

$$\frac{F\cos(13) - 6.1}{\cos(29)}\sin 29 + F\sin 13 - 13 = 0.$$

$= 21.4.$

$-F\cos(13) + G\cos(29) - 6.1 = 0$

$G\cos(29) - 6.1 = F\cos(13)$

$G\cos(29) = F\cos(13) + 6.1$

$$G = \frac{F\cos(13) + 6.1}{\cos(29)}$$

X: $\frac{-G\cos(29°)}{-\cos 29°} = \frac{+F\cos(13) + 6.1}{-\cos 29°}$

X: $-F\cos(13) + G\cos(29) - 6.1 = 0$

Y: $F\sin(13) + G\sin(29) - 13 = 0$

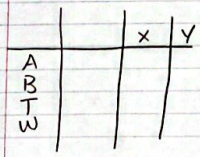
$G\cos(29) - 6.1 = F\cos(13)$

$$\frac{G\cos(29) - 6.1}{\cos(13)} = F$$

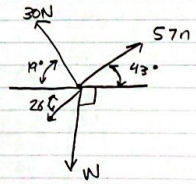
$$F\sin(13) + \frac{G\cos(29) - 6.1}{\cos(13)}$$

$$\frac{G\cos(29) - 6.1}{\cos(13)}\sin(13) + G\sin(29) - 13 = 0$$

Assessment



14.8



14.8 unknown that I solve 4

X: $57\cos 43 - 30\cos(19) - F\cos(26)$

$133/\cos 26$ $+ \frac{\cos(26)}{\cos 26}$

y: $57\sin 43 + 30\sin(19) - 14.8\sin(26)$

$48.6 - 14.8\sin(26)$

$= 42.5$

w = that.

$T\cos 26 = 57\cos 43 - 30\cos(19)$

$T = 14.8$