**PreQuiz 9.1**

**Statics**

Name

Favorite Book

**Show your work, and circle your answers and use sig figs to receive full credit. Use g = 9.81 N/kg**

1. Find the **E**quilibrant – express it as an angle magnitude vector. Draw it with its tail on the origin. Express the angle as a proper trigonometric angle. Write your answer with 3 sig figs, but carry at least 5 so you don’t make rounding errors.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Magnitude | Trig Angle | x | y |
| A |  |  |  |  |
| B |  |  |  |  |
| E |  |  |  |  |

**A =** 17.0 N

**B =** 23.0 N

42.0o

31.0o

**x**

**y**

(32.4 N, at 270.8o Trig Angle)

2. Find the tensions in the cables C and D. Set up your x and y equations where indicated, and if you set up a matrix, write down what you are entering into it in matrix notation.

C

D

56.0o

34.0o

**35.0 kg**

X:

Y:

(C = 192 N, D = 285 N)