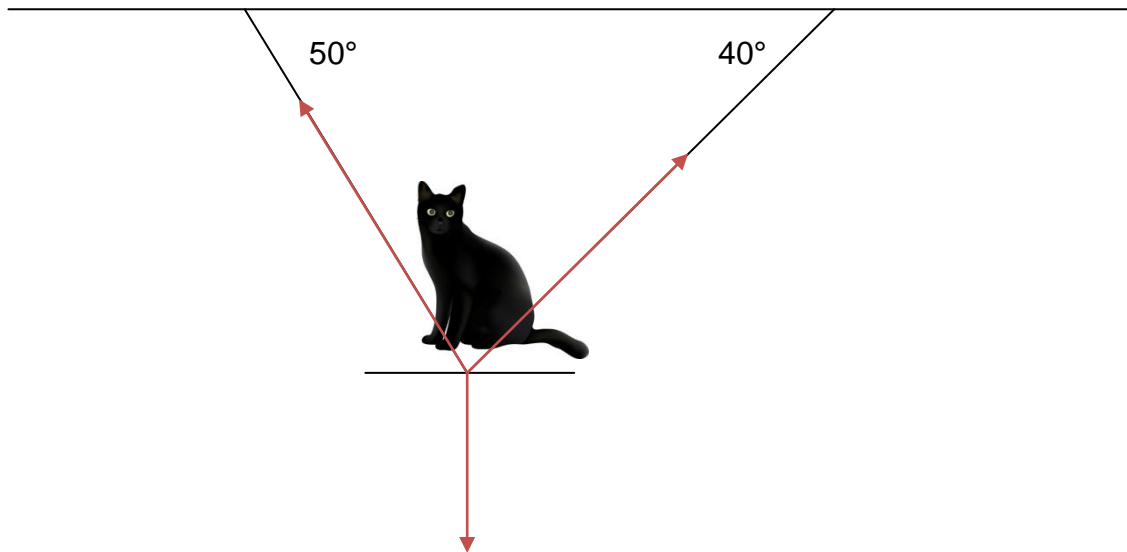


Provide a clear and organized presentation. Show all of your work, and completely simplify your answer. Approximations here are sufficient as long as I can follow your work.

My cat *Pythagoras*, whose weight is 8 pounds, sits upon a shelf as indicated in the following image:



Determine both the magnitudes and the representations of the tension vectors along these cables supporting *Pythagoras*.