Forces in 2D Practice   Name:_____

Reflection and Self-Assessment
Part 1: Circle the statement that best describes how you completed the practice:
- I answered all questions without using the online solutions. I checked my answers against the key at the back of the practice and was able to determine my mistakes and correct them without referring to the online solutions.

- I answered most questions correctly without using the online solutions. I used the online solutions to help me with some questions and was able, with help from the online solutions, to understand every question and answer them correctly.

- I used the online solutions to help me with most of the questions. I was able, with help from the online solutions, to understand each question and answer them correctly.

- Even using the online solutions, I was not able to fully understand the solution to some problems. The questions I had trouble with were:

    _____
- I did not attempt all the questions on the practice.

Part 2: Circle the statement that best describes your confidence in answering questions of this type in the future.
- I am confident I can answer nearly any question of this type correctly without using notes or other assistance.

- I am confident I can answer **MOST** questions of this type correctly without using notes or other assistance.

- I am **NOT** confident I can answer most questions of this type correctly without using notes or other assistance.

Part 3: Circle the statement below that best describes the total amount of time you spent actively working on this practice:

| Less than an hour | Between one and two hours | Between two and three hours | Between three and four hours | More than four hours |

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1. A person pulls a 15 kg sled using a rope at an angle of 30.0° above the horizontal with 55 N of force. If the sled moves at a constant velocity horizontally through the snow what is
   a. The normal force acting between the sled and the snow?
   b. The coefficient of friction between the snow and the sled?

2.

A 5 500 kg helicopter is travelling at constant speed in level flight.
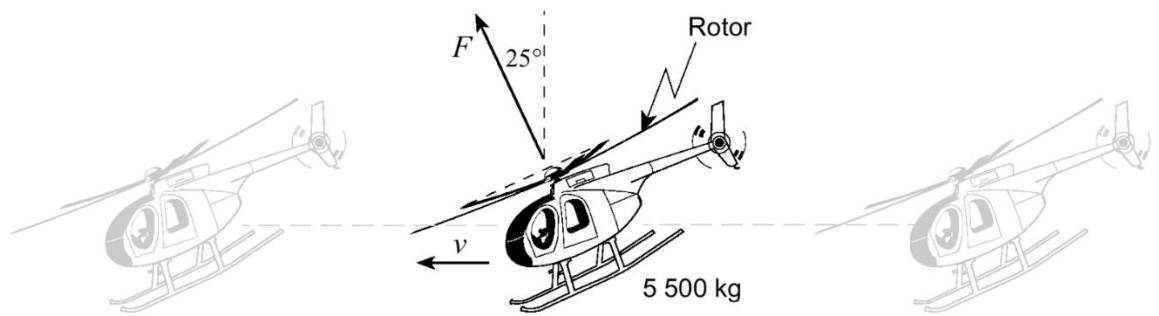
What is the force F provided by the rotor?

3. A 20.0 kg rocket is launched from Earth aimed 55° above the horizontal. The force output of the rocket engine is 400.0 N. What is the acceleration of the rocket (magnitude and direction)?

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ANSWERS

1a) 120 N	1b) 0.40	2) 5.9×10^4 N
3) 13 m/s², 3.0×10^1 degrees above the horizontal.		