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**Ch 4.2 Newton’s First Law -** Page 128 - Practice Problems B – Determining Net Force

1. A man is pulling on his dog with a force of 70.0 N directed at an angle of +30.0° to the horizontal. Find the *x* and *y* components of this force.
2. A gust of wind blows an apple from a tree. As the apple falls, the gravitational force on the apple is 2.25 N downward, the force of the wind on the apple is 1.05 N to the right. Find the magnitude and direction of the net force on the apple.
3. The wind exerts a force of 452 N north on a sailboat, while the water exerts a force of 325 N west on the sailboat. Find the magnitude and direction of the net force on the sailboat.