Forces on crate Problems

1. A force of 85 N is applied to a crate with a rope at an angle of 30° upward. The force pulls to the right. Friction force is 25 N when the crate is moving. The crate has a mass of 40 kg. Draw a free body diagram of this situation on the crate below. **Put the components of the applied force on your Free body Diagram.** Then determine the Normal force acting on the crate.



1. A force of 75 N is applied to a crate with a rope. The force pulls to the right and is going up at an angle of 20°. Friction force is 35 N when the crate is moving. The crate has a mass of 40 kg. Draw a free body diagram of this situation on the crate below. **Put the components of the applied force on your Free body Diagram.** Then determine the Normal force acting on the crate.



1. A force of 75 N is applied to a crate with a rope. The force pulls to the left and is upward at an angle of 25°. Friction force is 45 N when the crate is moving. The crate has a mass of 60 kg. Draw a free body diagram of this situation on the crate below. **Put the components of the applied force on your Free body Diagram.** Then determine the Normal force acting on the crate.



1. A force of 125 N is applied to a crate. The force pushes to the right at a downward angle of 15°. Friction force is 40 N when the crate is moving. The crate has a mass of 55 kg. Draw a free body diagram of this situation on the crate below. **Put the components of the applied force on your Free body Diagram.** Then determine the Normal force acting on the crate.



1. A force of 155 N is applied to a crate. The force pushes to the right at a downward angle of 25°. Friction force is 40 N when the crate is moving. The crate has a mass of 55 kg. Draw a free body diagram of this situation on the crate below. **Put the components of the applied force on your Free body Diagram.** Then determine the Normal force acting on the crate.



1. A force of 85 N is applied to a crate. The force pushes to the right at a downward angle of 15°. Friction force is 60 N when the crate is moving. The crate has a mass of 55 kg. Draw a free body diagram of this situation on the crate below. **Put the components of the applied force on your Free body Diagram.** Then determine the Normal force acting on the crate..



