



Forces / Set 2 / Animation 4

Name _____ Class _____

<Show all work on calculations. Include proper units. Explanations require complete sentences.>

- 1) Use kinematics to find the acceleration of the green block.

- 2) Draw and label a free body diagram showing all forces acting on the green block.

- 3) Given a push of $F = 50.0 \text{ N}$ on the top block, calculate the coefficient of kinetic friction between the top and bottom block.

- 4) Use kinematics to find the acceleration of the red block.

- 5) Draw and label a free body diagram showing all forces acting on the red block.

- 6) Calculate the magnitude and direction of the force that accelerates the red block.

- 7) Compare this force to the force of friction on the green block.