

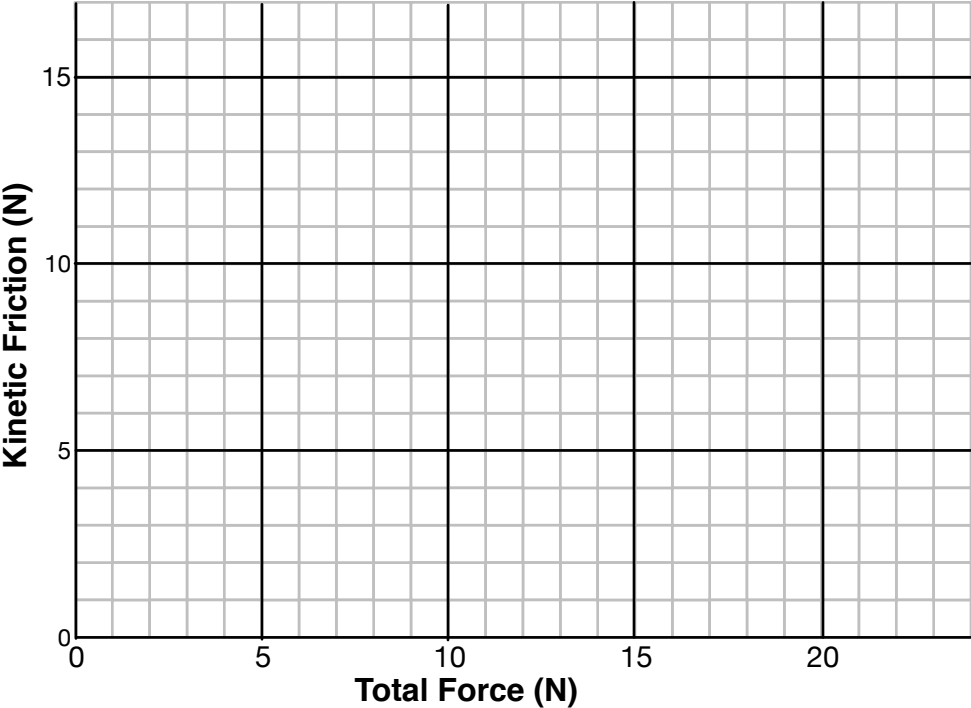
Cycle 4 Tug-of-War etc.

Friction 2

Measure kinetic friction in each case. Pull Horizontally!

Object	Friction on table top	Friction on Rug	Friction on Concrete	Total Force on surface
Block				
Block + 5 N				
Block + 10 N				
Block + 15 N				

Graph Friction vs Total Force for all three surfaces below



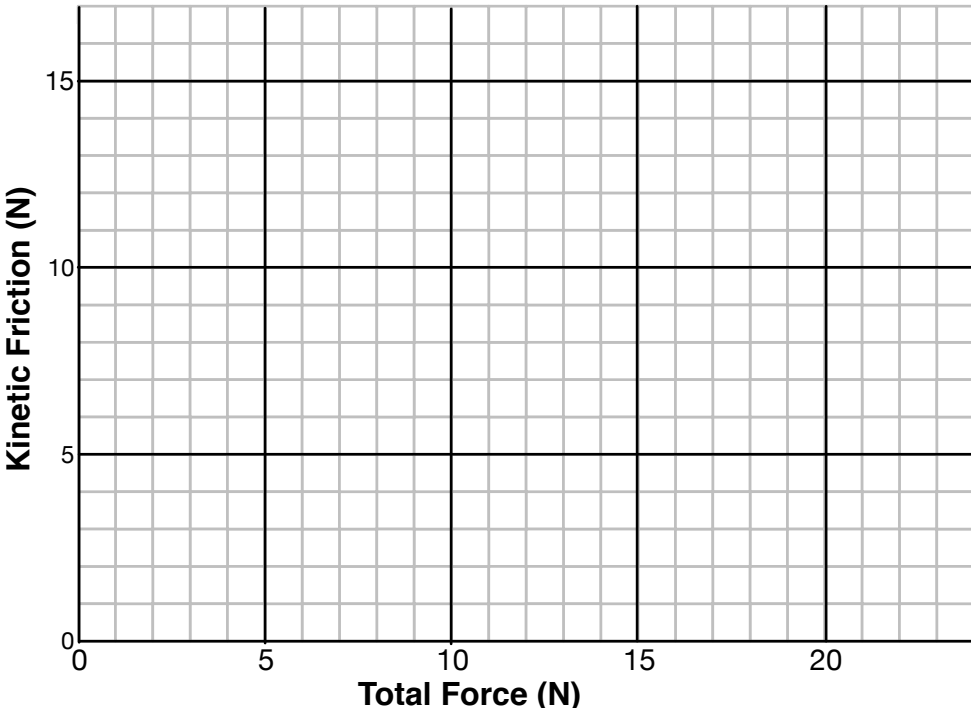
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1. Draw a line of best fit for each surface. Is the dependence of friction on the total force pushing the surfaces together roughly linear or is it curved?

2. What force that we already learned about would take into account the total force pushing the surfaces together? (What force canceled it out in the y-direction every time?)

3. What is it about each graph that tells you how good friction is on each surface? (Math term.)

4. Is there a way you could use the graph to calculate one number for each surface to characterize it? Go ahead and calculate it for each surface.