

Physics C6r1
Friction Problems

1. A 15 kg box is pulled across a horizontal surface at a constant velocity. What is μ if the box is pulled by a 130 N force directed along the horizontal?

2. What is μ if a 15 kg box is pulled across a horizontal surface at a constant velocity by a 130 N force acting a 21° from the surface?

3. What is the acceleration of a 15 kg box if it is pulled across a horizontal surface by a 130 N force acting a 21° from the horizontal and μ is 0.11?

4. What is μ of a 15 kg box on a 12° ramp if it slides down at a constant velocity.

5. What is the acceleration of a 15 kg box on a 33° ramp if μ is 0.17?

6. What is the acceleration of a 15 kg box if it is pushed up a 22° ramp by a force of 222N acting parallel with the surface (μ is still 0.17)?

7. A 66 kg runner traveling at 15 km/hr trips and falls and comes to rest in 3.4 m. What is μ ?

