FORCES REVIEW

Try this problem:

A 30 kg block sits on a ramp that is 2 meters long at a
45 degree angle. It slides down the ramp with NO friction.
Then it slides along the rough floor
and stops after 10 meters.
What is the coefficient of friction
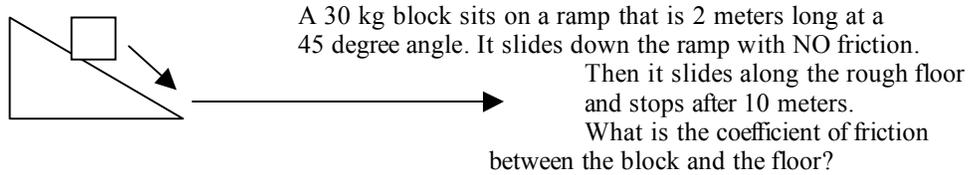between the block and the floor?

FIRST:
    2 parts: ramp and floor
Ramp:
        Mass of block=
        Weight of block=
        Parallel force down ramp=
        Acceleration=
        Distance=
        Initial velocity=
        Final velocity=

Floor:
        Initial velocity=
        Final velocity=
        Weight of block=
        Normal force=
        Distance=
        Deacceleration=
        Force friction=
        Coefficient of friction=

For test:
        What factors affect the force of air resistance?
        What is terminal velocity and what does it depend on?
        Describe the path of a brick thrown at an angle of 45degrees into the air with air resistance that
then lands and skids on the ground.
        Describe how to draw a force diagram for moving objects.
        Describe the relationship between mass, weight, and acceleration due to gravity.
        If an object is moving at a constant speed describe the forces acting on it.
        How are the properties of static and starting friction related?
        Explain, using Newton's 2nd law, why giving with a baseball pitch hurts your hand less.
        Describe Newton's 1st law.
        Describe the forces, motion, and acceleration of two objects pushing each other, and what it
depends on.
        Describe the four fundamental forces, their range, strength, and how we perceive them in everyday
life.
        Describe how scientists study fundamental forces.
        Describe the normal force and how to calculate it.
        Describe how to calculate the coefficient of friction.
        Describe how to calculate the acceleration of an object moving horizontally with friction, a push,
and gravity acting on it.
        Describe how to calculate the coefficient of friction of an object moving at a constant speed doewn
a ramp.
        Explain why the coeeficient of friction does NOT depend on the mass or surface area of an object.