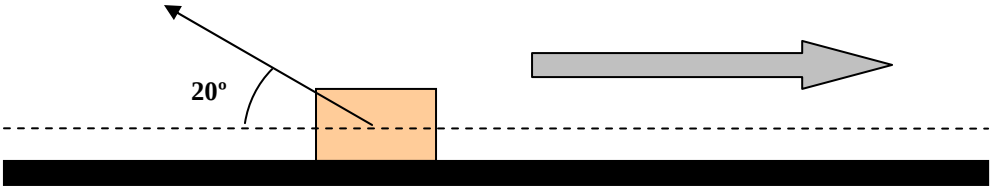
# Work, power and energy

**1.** A car exerts a force of *10,000 N* while driving on a horizontal stretch of road. *How much work* is done when the car travels *50 m*? ***A: $5 \cdot 10^5$ J.***

**2.** A *12 kg* sled & rider is pulled by a 50 N for *200 m*. The force acts at a *60°* angle with the ground. How much *work* is done by the applied force? ***A: 5000 J.***

**3.** A *150 kg* object is stopped by a *force applied at a 30°* angle with the ground. The object is stopped in *20 m* with *500 J* of work. What is the *magnitude of the force*? ***A: 29 N.***




**4.** An *82 kg* trucker loads a crate as shown below. He pushes the *50 kg* box such that *his arms are parallel to the ground*. He pushes with a *200 N force*. How much *work is done* by the trucker on the box? ***A: 800 J.***