

Chapter 9

Questions

7. While the particle is moving up, the work done by gravity is negative. While it's moving down, the work done is positive. While it's not moving in either direction, it's doing zero work.
8. Since work is $F \cdot d$, and the force of pulling the rope on a plane is reduced, proportionally to an increase in the distance you need to travel, the product of both cases will be the same.

Problems

11. a.

$$\vec{A} \cdot \vec{B} = A_x B_x + A_y B_y$$
$$=$$

- b.

18.

20.

22.

40.

Chapter 10

Questions

4.

8.

Problems

11.

15.

22.