Physics 12: Work and Energy, Hip-Hip-Hooray! (3 sig figs)

1. Find the work done by the force shown over the following intervals.

120N

100N

80N

60N

40N

20N

0N

 2m 4m 6m 8m 10m 12m 14m 16m

a. 0m to 4m

 b. 2m to 6m

 c. 8m to 16m

 d. 0m to 16m

2.

30N

25N

20N

15N

10N

5N

0N

 2m 4m 6m 8m 10m 12m 14m 16m

The force shown acts on a 4.0kg object initially at rest.

a. IF there is no friction present find the final velocity of the

object assuming level ground.

 b. IF there is no friction present find the final velocity of the object assuming the ground is angled at 120 above horizontal.

 c. IF there is no friction present find the final velocity of the object assuming the ground is angled at 320 below horizontal.

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