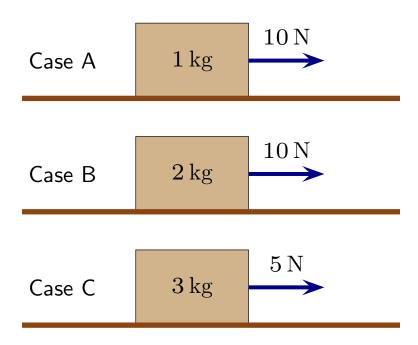
Question 1

Three boxes move horizontally while being pulled by people who exert constant forces horizontally.



The blocks move right by distances $d_{\rm A}=1\,{\rm m},\ d_{\rm B}=1\,{\rm m},\ d_{\rm C}=2\,{\rm m}.$ Which of the following represents the ranking of the works done.

1.
$$W_{A} = W_{B} = W_{C}$$

2.
$$W_{\rm C} < W_{\rm A} = W_{\rm B}$$

3.
$$W_{A} = W_{B} < W_{C}$$

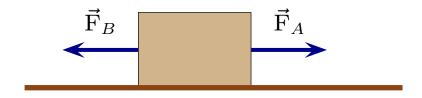
4.
$$W_{A} < W_{B} < W_{C}$$

5.
$$W_{A} < W_{C} < W_{B}$$

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Question 2

Two forces pulled horizontally on a box, while the box *moves left*.



Let W_A be the work done by A and W_B be the work done by B. Which of the following is true?

- 1. W_A is positive. W_B is positive.
- 2. W_A is positive. W_B is negative.
- 3. W_A is negative. W_B is positive.
- 4. W_A is negative. W_B is negative.

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Warm Up Question 1

A person holds a large fish suspended from a string. The person walks horizontally at a constant speed and during this time the string hangs vertically. Does the work done by the string/person on the fish depend on the distance walked by the person? Explain your answer.

- 1. Yes. The work definition contains distance.
- 2. No. The force and displacement are perpendicular.

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Warm Up Question 2

A leaf falls to the ground at a constant speed. Is the net work done on the leaf positive, negative or zero? Explain your answer.

- 1. Zero. Kinetic energy is constant.
- 2. Negative. The leaf falls and loses energy.
- 3. Negative. The leaf moves down.
- 4. Positive. The leaf moves down and gravity does positive work.