Work Done Questions

- **W = F × d** (when force is in the direction of motion)
- **F = Force, d = Distance**
- **W = F × d × cos(θ)** (when force is at an angle θ to the direction of motion)

1. A person pushes a shopping trolley with a force of 100 N over a distance of 5 m. How much work is done?

2. A horse pulls a cart with a force of 500 N for 20 m. Calculate the work done.

3. A student lifts a box with a force of 150 N and moves it vertically by 1.5 m. How much work is done?

4. A crane lifts a load with a force of 2000 N up by 10 m. Find the work done.

5. A person pushes a lawn mower with a force of 250 N over 8 m. Calculate the work done.

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6. A worker pulls a suitcase with a force of 120 N at an angle of 30° over 10 m. How much work is done?

7. A child pulls a sled with a force of 100 N at 45° for 15 m. Calculate the work done.

8. A rope pulls a box with a force of 300 N at 60° across a distance of 5 m. Find the work done.

9. A mover pushes a sofa with 400 N at an angle of 20° over 4 m. How much work is done?

10. A gardener drags a sack of compost with 90 N at 35° for 7 m. What is the work done?