WORK-SET-2

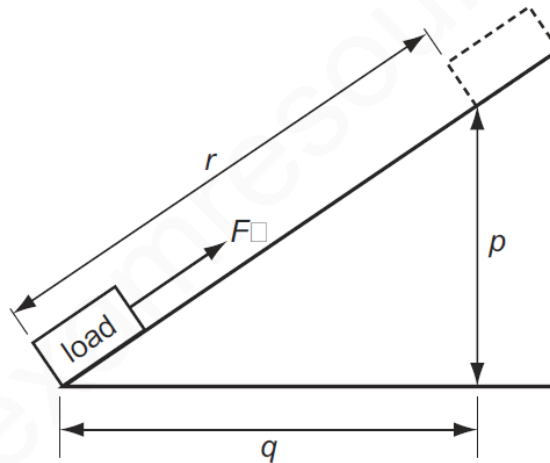| 1	The work done W by a force is related to the magnitude F of the force and the distance d moved in the direction of the force.
	Which equation for W is correct?
	A $W = d \div F$
	B $W = d + F$
	C $W = F \div d$
	D $W = F \times d$

MS-1	D

2	A force F moves a load from the bottom of a slope to the top.

The work done by the force depends on the size of the force, and on a distance.
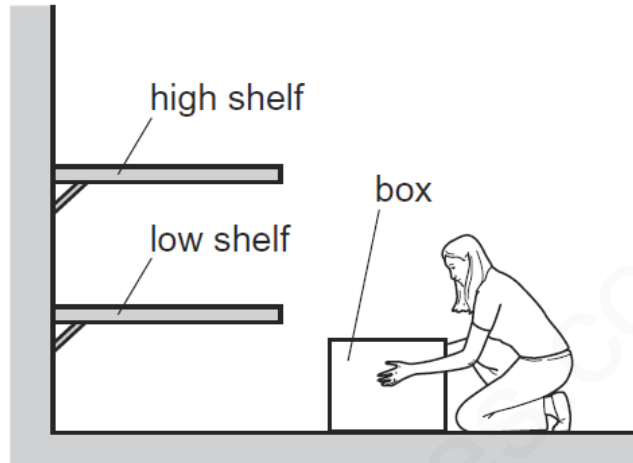
What is this distance?

A p **B** q **C** r **D** $p + q$

MS-2	C

3	A woman in a factory has to lift a box on to a shelf.
	Which action involves the woman in doing the **least** amount of work?
	A lifting the box quickly to the high shelf
	B lifting the box slowly to the high shelf
	C lifting the box to the low shelf first then lifting it to the high shelf
	D lifting the box to the low shelf instead of to the high shelf
MS-3	D
4	Which movement will require the greatest amount of work to be done?
	A a force of 10 N moving an object a distance of 3.0 m
	B a force of 10 N moving an object a distance of 5.0 m
	C a force of 15 N moving an object a distance of 3.0 m
	D a force of 15 N moving an object a distance of 5.0 m
MS-4	D

5	A student does some work by pulling a suitcase along a corridor.

She now pulls a second suitcase along the corridor.

Which row indicates that the student is now doing twice as much work?

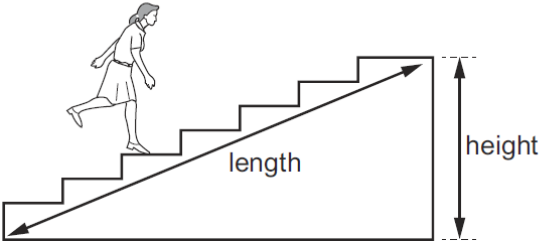|	the force used to pull suitcase	the distance the suitcase is pulled
A	is doubled	is doubled
B	is doubled	is halved
C	stays the same	is doubled
D	stays the same	is halved

MS-5	C

6	What needs to be known to calculate the work done by a force acting on an object?

	the size of the force	the distance the force moves the object	the time for which the force acts	
A	✓	✓	✓	key
B	✓	✓	✗	✓ = needed
C	✓	✗	✓	✗ = not needed
D	✓	✗	✗	

MS-6	B

7	A student runs up a flight of stairs.
	Which information is **not** needed to calculate the rate at which the student is doing work against gravity?
	A the height of the flight of stairs
	B the length of the flight of stairs
	C the time taken to run up the stairs
	D the weight of the student
MS-7	B
8	A crane on a building site lifts bricks of total mass 200 kg, initially at rest on the ground, with uniform acceleration.
	When the bricks are 5.0 m from the ground, they have a speed of 5.0 m/s.
	How much work is done during this process?
	A 2.5 kJ **B** 10.0 kJ **C** 12.5 kJ **D** 35 kJ
MS-8	C
9	A man carries 20 tiles from the ground to the roof of a house. Each tile has a mass of 1.2 kg. The roof of the house is 15 m above the ground.
	How much work does the man do against gravity on the tiles in carrying them to the roof?
	A 36 J **B** 180 J **C** 360 J **D** 3600 J
MS-9	D
10	A force of 25 N acts on an object. The work done by the force is 400 J.
	How far does the object move in the direction of the force?
	A 6.3 cm **B** 16 cm **C** 16 m **D** 10 km
MS-10	C