Task

Use the equation: **work done = force x distance**

Match each problem to the correct answer either by drawing lines or by writing the matching letter next to the problem.

(Hint: 1 000 m = 1 km)

1	Force = 10 N Distance = 24 m
2	Force = 2 000 N Distance = 100 m
3	Force = 36 N Distance = 3 m
4	Force = 500 N Distance = 3 m
5	Force = 2.5 N Distance = 14 cm
6	Force = 4 kN Distance = 0.25 km
7	Force = 17.5 N Distance = 17 m
8	Force = 360 N Distance = 2 m
9	Force = 15 N Distance = 4 km
10	Force = 15 N Distance = 3 cm

W = 297.5 J	**A**
W = 108 J	**B**
W = 0.35 J	**C**
W = 200 000 J	**D**
W = 1 000 000 J	**E**
W = 60 000 J	**F**
W = 720 J	**G**
W = 240 J	**H**
W = 1 500 J	**I**
W = 0.45 J	**J**

Answers

1	Force = 10 N Distance = 24 m	W = 240 J	**H**
2	Force = 2 000 N Distance = 100 m	W = 200 000 J	**D**
3	Force = 36 N Distance = 3 m	W = 108 J	**B**
4	Force = 500 N Distance = 3 m	W = 1 500 J	**I**
5	Force = 2.5 N Distance = 14 cm	W = O.35 J	**C**
6	Force = 4 kN Distance = 0.25 km	W = 1 000 000 J	**E**
7	Force = 17.5 N Distance = 17 m	W = 297.5 J	**A**
8	Force = 360 N Distance = 2 m	W = 720 J	**G**
9	Force = 15 N Distance = 4 km	W = 60 000 J	**F**
10	Force = 15 N Distance = 3 cm	W = 0.45 J	**J**

Ask students to convert any answers they think are suitable to kJ.

D = 200 kJ, E = 1 000 kJ (or 1 MJ), I = 1.5 kJ, F = 60 kJ