

1.

$$s = 50 \text{ cm} \rightarrow 0,5 \text{ m}$$

$$a = g = 10 \text{ m/s}^2$$

$$\underline{m = 78 \text{ kg}}$$

$$W = 390 \text{ J}$$

$$F = m * g$$

$$F = 780 \text{ N}$$

$$W = F * s$$

$$\underline{W = 390 \text{ J}}$$

2.

$$s = 5 \text{ m}$$

$$a = g = 10 \text{ m/s}^2$$

$$\underline{m = 100 \text{ t} \rightarrow 100000 \text{ kg}}$$

$$W = 5 \text{ MJ}$$

$$F = m * a$$

$$F = 1000000 \text{ N}$$

$$W = F * s$$

$$\underline{W = 5000000 \text{ J} \rightarrow 5 \text{ MJ}}$$

3.

$$m = 20 \text{ kg}$$

$$a = g = 10 \text{ m/s}^2$$

$$\underline{s = 50 \text{ cm} * 100 = 50 \text{ m}}$$

$$W = 10 \text{ kJ}$$

$$F = m * a$$

$$F = 200 \text{ N}$$

$$W = F * s$$

$$\underline{W = 10000 \text{ J} \rightarrow 10 \text{ kJ}}$$
