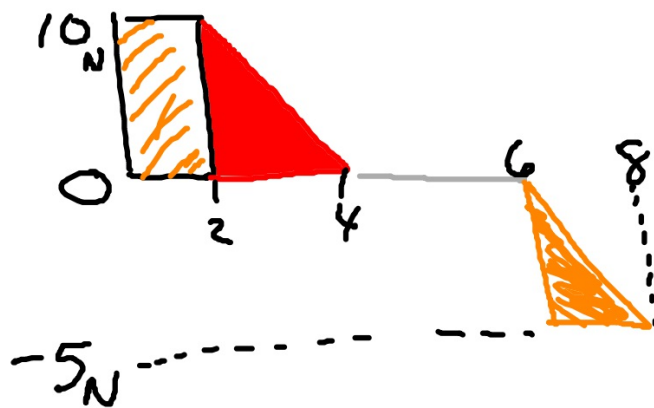


36. $W = ?$

$W = \text{area under } F \text{ vs } x \text{ graph}$



$$20\text{J} + 10\text{J} + 0 - 5\text{J}$$

$$\textcircled{25\text{J}}$$

41. $W_{\text{net}} = ?$ $m = 3\text{kg}$

$$X(t) = 3t - 4t^2 + t^3$$

$$t = 0 - 4 \text{ sec}$$

$v = \frac{dx}{dt}$ $W_{\text{net}} = \Delta K = \frac{1}{2}mv_f^2 - \frac{1}{2}mv_o^2$

$$v = 3 - 8t + 3t^2$$

$$v(0) = 3 \quad v(4) = 19$$

$$W_{\text{net}} = \frac{1}{2}(3)(19)^2 - \frac{1}{2}(3)(3)^2 = 528\text{J}$$