

1) mass "shot"

a) mass of cup _____ g

b) mass of cup and "shot" _____ g

c) mass of "shot" (1b - 1a) _____ g

_____ kg

2) t_i of "shot" three times _____ $^{\circ}\text{C}$

_____ $^{\circ}\text{C}$

_____ $^{\circ}\text{C}$

average: _____ $^{\circ}\text{C}$

3) t_f of "shot" _____ $^{\circ}\text{C}$

$\Delta t = t_f - t_i =$ _____ $^{\circ}\text{C}$

4) dist. (from top to shot
to bottom of cork) _____ m

total dist _____ m

calculations

1) $U = mgh$

2) $\Delta t =$

3) "c" lead .0305 cal/ $g^{\circ}\text{C}$
"c" copper .0923 cal/ $g^{\circ}\text{C}$

$Q = mc\Delta t$

4) Equivalent = $U/Q =$ _____ J/cal

$E_a = O - A$

$E_a = O - 4.19 \text{ J/cal}$

$E_r = E_a / 4.19 \text{ J/cal} \times 100$