

17 A sample of helium is heated at constant pressure from 273 K to 373 K. Assuming that it behaves as an ideal gas, what is the mass of helium present if the gas does 20 J of work? (Mass of 1 mole of helium atoms = 4.0 g)

A 0.024 g

B 0.048 g

C 0.096 g

D 0.19 g