

Answer on Question #54929, Physics / Astronomy | Astrophysics

$$E = (\text{Number of neutrons}) \times (\text{Energy per neutron})$$

$$E = 2.4 \times 10^{57} \text{ neutrons} \times 2 \text{ MeV/neutron.}$$

$$1 \text{ MeV} = 1.6 \times 10^{-6} \text{ ergs, than:}$$

$$E = 2.4 \times 10^{57} \times 2 \text{ MeV} \times 1.6 \times 10^{-6} \text{ ergs/MeV}$$

$$E = 2.4 \times 2 \times 1.6 \times 10^{51} = 7.7 \times 10^{51} \text{ ergs.}$$

Answer: $E = 7.7 \times 10^{51}$ ergs (C)

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