

## Logan Fasser

R136a1 is the most massive star known to date. How much energy would it take for this star to explode?

$$\text{Mass} = 5.788 \times 10^{32} \text{ kg}$$

$$\text{Radius} = 2.971 \times 10^{10} \text{ m}$$

Answer

$$E = -\frac{3}{5} \left( \frac{GM^2}{R} \right) = \boxed{-4.51 \times 10^{44} \text{ J}}$$