

Answer on Question #48303, Physics, Acoustics

A catapult accelerates a rock from rest to a velocity of 15.0 m/s [S] over a time interval of 12.5 s. What is the rocks average acceleration.

Acceleration by definition is:

$$a = \frac{v}{t}$$

Thus, acceleration of a rock is:

$$a = \frac{15.0 \frac{m}{s}}{12.5 s} = 1.20 \frac{m}{s^2}$$

Answer: acceleration of a rock is $1.20 \frac{m}{s^2}$