

## Answer on Question 68080, Physics, Other

### Question:

A bicycle tire pump has a piston with area  $0.40 \text{ in}^2$ . If a person exerts a force of  $23 \text{ lb}$  on the piston while inflating a tire, what pressure does this produce on the air in the pump?

### Solution:

By the definition of the pressure, we get:

$$P = \frac{F}{A} = \frac{23 \text{ lb}}{0.40 \text{ in}^2} = 57.5 \text{ Psi.}$$

### Answer:

$$P = 57.5 \text{ Psi.}$$

Answer provided by <https://www.AssignmentExpert.com>