

This book has permission to use the "N&K method of COLORS".

32) Question: The posted weight limit for a boat is 5000 pounds. The weight of the empty boat is 3000 pounds. The weight of the boatman is 200 pounds. How many bricks, each weighing 12 pounds, can the boat carry?

For speed, while solving something similar, only THINK the words in blue; WRITE only the words in other COLORS.

Solution:

- Given
- 1) The posted weight limit for the boat is 5000 pounds.
  - 2) The weight of the empty boat is 3000 pounds.
  - 3) The weight of the boatman is 200 pounds.
  - 4) How many bricks, each weighing 12 pounds, can the boat carry?

Road Map of Solution:

First Step: Find the brick carrying capacity of the boat.  
i.e. Posted weight limit – weight of empty boat – weight of boatman.

Second Step: Find the number of bricks the boat can carry.  
i.e. Divide the carrying capacity of the boat by weight of one brick.

First Step: Find the brick carrying capacity of the boat.  
i.e. Posted weight limit – weight of empty boat – weight of boatman.

$$\begin{aligned} &= 5000 \text{ lbs} && - 3000 \text{ lbs} && - 200 \text{ lbs} \\ &= 1800 \text{ lbs.} \end{aligned}$$

Second Step: Find the number of bricks the boat can carry.  
i.e. Divide the brick carrying capacity of the boat by weight of one brick.

$$\begin{aligned} &= \frac{\text{brick carrying capacity of the boat}}{\text{weight of one brick}} \\ &= \frac{1800 \text{ lbs}}{12 \text{ lbs}} \\ &= \frac{1800 \cancel{\text{ lbs}}}{12 \cancel{\text{ lbs}}} \\ &= \frac{150}{1} \end{aligned}$$

= 150 is the number of bricks, each weighing 12 pounds, that the boat can carry. Answer