

Task:

A worker earns \$6 per hour for the first 40 hours a weeks he works and \$9 per hour for any extra hours. Assuming that he works at least 40 hours, write an expression for his gross weekly wage in terms of H, the total hours worked per week and then simplify?

Solution:

A worker works at least 40 hours per week and during that time earns

$$40 \cdot 6 = 240 \text{ (\$)}.$$

For all extra hours a worker earns: $9(H - 40) = 9H - 360$ (\$).

Weekly wage worker is: $240 + 9H - 360 = 9H - 120$ (\$).

Answer: $\$(9H - 120)$.