1. Which of the following are correct calculations for difference quotient of: $n(w) = 6 \ w + 9$ $n(w) = 6 \ w + 9$ $n(w+h) = 6 \ (h+w) + 9$ $= 6 \ h + 6 \ w + 9$

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\begin{array}{l} n \ (w+h) = 6 \ (h+w) \ + 9 \\ = 6 \ h + 6 \ w + 9 \\ \frac{n \ (w+h) - n \ (w)}{h} = \frac{(6 \ h + 6 \ w + 9) - (6 \ (w+1) + 9)}{h} \\ = \frac{6 \ h}{h} \\ = \frac{h \ (6)}{h} \\ = 6 \\ \\ \hline \\ n \ (w+h) = 6 \ (h+w) \ + 9 \\ = 6 \ h + 6 \ w + 15 \\ \frac{n \ (w+h) - n \ (w)}{h} = \frac{(6 \ h + 6 \ w + 15) - (6 \ w + 9)}{h} \\ \hline \end{array}
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$$\begin{array}{c} n\left(w\right) = 6 \ w + 9 \\ n\left(w + h\right) = 6 \ \left(h + w\right) \ + 9 \\ = 6 \ h + 6 \ w + 9 \\ \frac{n\left(w + h\right) - n\left(w\right)}{h} = \frac{\left(6 \ h + 6 \ w + 9\right) - \left(6 \ w + 9\right)}{h} \\ = \frac{6 \ h}{h} \\ = \frac{h\left(6\right)}{h} \\ = 6 \end{array}$$

$$\begin{split} n &(w) = 6 \ w + 9 \\ n &(w+h) = 6 \ (h+w) + 9 \\ &= 6 \ h + 6 \ w + 3 \\ \frac{n &(w+h) - n &(w)}{h} &= \frac{(6 \ h + 6 \ w + 21) - (6 \ w + 9)}{h} \\ &= \frac{6 \ h}{h} \\ &= \frac{h &(6)}{h} \\ &= 6 \end{split}$$

Solution

 $=\frac{6 \text{ h}}{\text{h}}$

 $= \frac{h(6)}{h}$ = 6