4. Which of the following are correct calculations for difference quotient of: w(y) = 5 y + 6 w(y) = 5 y + 6 w(y+h) = 5 (h+y) + 6 -5 h + 5 y + 6

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w(y) = 5 y + 6
w(y+h) = 5 (h + y) + 6
= 5 h + 5 y + 6
\frac{w(y+h) - w(y)}{h} = \frac{(5h+5y+6) - (5(y+1)+6)}{h}
= \frac{5h}{h}
= \frac{h(5)}{h}
= 5
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$$\begin{split} &w\left(\,y + h\,\right) = 5 \;\left(\,h \,+\, y\,\right) \;+\, 6 \\ &= 5 \;h \,+\, 5 \;y \,+\, 11 \\ &\frac{w\left(\,y + h\,\right) \,-\, w\left(\,y\,\right)}{h} \,=\, \frac{(5 \;h + 5 \;y + 11) \,-\, (5 \;y + 6)}{h} \\ &=\, \frac{5 \;h}{h} \\ &=\, \frac{h\left(\,5\,\right)}{h} \\ &=\, 5 \end{split}$$

$$\begin{split} &w\left(y\right)=5\ y+6\\ &w\left(y+h\right)=5\ (h+y)+6\\ &=5\ h+5\ y+6\\ &\frac{w\left(y+h\right)-w\left(y\right)}{h}=\frac{(5\ h+5\ y+6)-(5\ y+6)}{h}\\ &=\frac{5\ h}{h}\\ &=\frac{h\left(5\right)}{h}\\ &=5 \end{split}$$

Solution