1. Which of the following are correct calculations for difference quotient of: $n(b) = 6\ b + 7$ $n(b) = 6\ b + 7$ $n(b+h) = 6\ (b+h) + 7$ $= 6\ b + 6\ h + 7$

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\begin{split} &n\,(\,b+h\,)=6\,\,(\,b\,+\,h\,)\,\,+\,7\\ &=6\,\,b\,+\,6\,\,h\,+\,7\\ &\frac{n\,(\,b+h\,)-n\,(\,b\,)}{h}=\frac{(\,6\,\,b+6\,\,h+7\,)-(\,6\,\,(\,b+1\,)\,+\,7\,)}{h}\\ &=\frac{6\,\,h}{h}\\ &=\frac{h\,(\,6\,)}{h}\\ &=6 \end{split} &n\,(\,b\,)=6\,\,b\,+\,7\\ &n\,(\,b+h\,)=6\,\,(\,b\,+\,h\,)\,\,+\,7\\ &=6\,\,b\,+\,6\,\,h\,+\,13\\ &\frac{n\,(\,b+h\,)-n\,(\,b\,)}{h}=\frac{(\,6\,\,b+6\,\,h+13\,)-(\,6\,\,b+7\,)}{h}
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\begin{array}{c} n\,(\,b\,) = \!6\,\,b \,+\, 7 \\ n\,(\,b + h\,) = \!6\,\,(\,b \,+\, h\,) \,\,+\, 7 \\ = \!6\,\,b \,+\, 6\,\,h \,+\, 1 \\ \frac{n\,(\,b + h\,) - n\,(\,b\,)}{h} = \frac{(\,6\,\,b + 6\,\,h + 19\,) - (\,6\,\,b + 7\,)}{h} \\ = \frac{6\,h}{h} \\ = \frac{h\,(\,6\,)}{h} \\ = \!6 \end{array}
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Solution

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

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