1. Which of the following are correct calculations for difference quotient of: s(r) = 9 r + 3 s(r) = 9 r + 3 s(r+h) = 9 (h+r) + 3 = 9 h + 9 r + 3

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s(r+h) = 9(h+r) + 3
= 9h + 9r + 3
\frac{s(r+h) - s(r)}{h} = \frac{(9h+9r+3) - (9(r+1)+3)}{h}
= \frac{9h}{h}
= \frac{h(9)}{h}
= 9
s(r) = 9r + 3
s(r+h) = 9(h+r) + 3
= 9h + 9r + 12
\frac{s(r+h) - s(r)}{s(r+h) - s(r)} = \frac{(9h+9r+12) - (9r+3)}{s(r+h) - s(r)}
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\begin{array}{c} s\;(\,r) = 9\;\,r \; + \; 3 \\ s\;(\,r + h) = 9\;\,(\,h \; + \; r\,) \; \; + \; 3 \\ = 9\;\,h \; + \; 9\;\,r \; - \; 6 \\ \frac{s\;(\,r + h) \; - s\;(\,r\,)}{h} = \frac{(9\;h + 9\;\,r + 21) \; - \;(\,9\;\,r + 3)}{h} \\ = \frac{9\;h}{h} \\ = \frac{h\;(\,9\,)}{h} \\ = 9 \end{array}
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## Solution

 $=\frac{9 \text{ h}}{\text{h}}$ 

 $=\frac{h(9)}{}$