5. Which of the following are correct calculations for difference quotient of: $v(s) = 5 \ s + 7$ $v(s) = 5 \ s + 7$

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V(s) = 5 + 7
V(s+h) = 5 + 7
= 5 + 5 + 7
\frac{V(s+h) - V(s)}{h} = \frac{(5h+5s+7) - (5(s+1)+7)}{h}
= \frac{5h}{h}
= \frac{h(5)}{h}
= 5
```

```
=5 h + 5 s + 12
\frac{v(s+h) - v(s)}{h} = \frac{(5 h+5 s+12) - (5 s+7)}{h}
= \frac{5 h}{h}
= \frac{h(5)}{h}
= 5
v(s) = 5 s + 7
v(s+h) = 5 (h + s) + 7
```

v(s+h) = 5(h+s) + 7

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 \begin{array}{c} v\left(s+h\right) = 5 \; \left(h+s\right) \; + 7 \\ = 5 \; h \; + \; 5 \; s \; + \; 7 \\ \\ \frac{v\left(s+h\right) - v\left(s\right)}{h} = \frac{\left(5 \; h + 5 \; s + 7\right) - \left(5 \; s + 7\right)}{h} \\ = \frac{5 \; h}{h} \\ = \frac{h \; (5)}{h} \\ = 5 \\ \\ \end{array}
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 \begin{array}{c} v\left(s\right) = 5 \ s + 7 \\ v\left(s + h\right) = 5 \ \left(h + s\right) + 7 \\ = 5 \ h + 5 \ s + 2 \\ \frac{v\left(s + h\right) - v\left(s\right)}{h} = \frac{(5 \ h + 5 \ s + 17) - (5 \ s + 7)}{h} \\ = \frac{5 \ h}{h} \\ = \frac{h\left(5\right)}{h} \\ = 5 \end{array}
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Solution