5. Which of the following are correct calculations for difference quotient of: $m(s) = 6 \ s + 8$ $m(s) = 6 \ s + 8$ $m(s+h) = 6 \ (h+s) + 8$ $= 6 \ h + 6 \ s + 8$

```
m(s) = 6 + 6 + 8
m(s+h) = 6 + 6 + 8 + 8
\frac{m(s+h) - m(s)}{h} = \frac{(6h+6s+8) - (6(s+1)+8)}{h}
= \frac{6h}{h}
= \frac{h(6)}{h}
= 6
m(s) = 6 + 8
m(s+h) = 6 + (h+s) + 8
```

$$\begin{array}{l} m\,(\,s\,+\,h\,)\,=\,6\,\,(\,h\,+\,s\,)\,\,+\,8\\ =\,6\,\,h\,+\,6\,\,s\,+\,14\\ \frac{m\,(\,s\,+\,h\,)\,-\,m\,(\,s\,)}{h}\,=\,\frac{(\,6\,\,h\,+\,6\,\,s\,+\,14\,)\,-\,(\,6\,\,s\,+\,8\,)}{h}\\ =\,\frac{6\,\,h}{h}\\ =\,\frac{h\,(\,6\,)}{h}\\ =\,6 \end{array}$$

```
\begin{array}{l} m\,(\,s\,) = 6\,\,s\, + \,8 \\ m\,(\,s + h\,) = 6\,\,(\,h + \,s\,) \,\, + \,8 \\ = 6\,\,h + \,6\,\,s + \,2 \\ \frac{m\,(\,s + h\,) - m\,(\,s\,)}{h} = \frac{(6\,\,h + 6\,\,s + 20\,) - (6\,\,s + 8\,)}{h} \\ = \frac{6\,h}{h} \\ = \frac{h\,(6)}{h} \\ = 6 \end{array}
```

Solution