6. Which of the following are correct calculations for difference quotient of: $t(z) = 4\ z + 5$ $t(z) = 4\ z + 5$ $t(z+h) = 4\ (h+z) + 5$

$$t(z+h) = 4(h+z) + 5$$

$$= 4h + 4z + 5$$

$$\frac{t(z+h)-t(z)}{h} = \frac{(4h+4z+5)-(4(z+1)+5)}{h}$$

$$= \frac{4h}{h}$$

$$= \frac{h(4)}{h}$$

$$= 4$$

$$t(z) = 4z + 5$$

$$t(z+h) = 4(h+z) + 5$$

$$=4 h + 4 z + 9$$

$$\frac{t(z+h)-t(z)}{h} = \frac{(4h+4z+9)-(4z+5)}{h}$$

$$= \frac{4h}{h}$$

$$= \frac{h(4)}{h}$$

$$= 4$$

$$t(z) = 4 z + 5$$

```
=4 h + 4 z + 5
\frac{t(z+h)-t(z)}{h} = \frac{(4 h+4 z+5)-(4 z+5)}{h}
= \frac{4 h}{h}
= \frac{h(4)}{h}
= 4
t(z) = 4 z + 5
```

t(z+h) = 4(h+z) + 5

$$\begin{array}{l} t\;(z) = 4\;z + 5 \\ t\;(z + h) = 4\;(h + z) + 5 \\ = 4\;h + 4\;z + 1 \\ \frac{t\;(z + h) - t\;(z)}{h} = \frac{(4\;h + 4\;z + 13) - (4\;z + 5)}{h} \\ = \frac{4\;h}{h} \\ = \frac{h\;(4)}{h} \\ = 4 \end{array}$$

Solution