

7. Which of the following are correct calculations for difference quotient of:

$$g(k) = 2k + 4$$

$$g(k) = 2k + 4$$

$$g(k+h) = 2(h+k) + 4$$

$$= 2h + 2k + 4$$

$$\frac{g(k+h) - g(k)}{h} = \frac{(2h + 2k + 4) - (2(k+1) + 4)}{h}$$

$$= \frac{2h}{h}$$

$$= \frac{h(2)}{h}$$

$$= 2$$

$$g(k) = 2k + 4$$

$$g(k+h) = 2(h+k) + 4$$

$$= 2h + 2k + 6$$

$$\frac{g(k+h) - g(k)}{h} = \frac{(2h + 2k + 6) - (2k + 4)}{h}$$

$$= \frac{2h}{h}$$

$$= \frac{h(2)}{h}$$

$$= 2$$

$$g(k) = 2k + 4$$

$$g(k+h) = 2(h+k) + 4$$

$$= 2h + 2k + 4$$

$$\frac{g(k+h) - g(k)}{h} = \frac{(2h + 2k + 4) - (2k + 4)}{h}$$

$$= \frac{2h}{h}$$

$$= \frac{h(2)}{h}$$

$$= 2$$

$$g(k) = 2k + 4$$

$$g(k+h) = 2(h+k) + 4$$

$$= 2h + 2k + 2$$

$$\frac{g(k+h) - g(k)}{h} = \frac{(2h + 2k + 2) - (2k + 4)}{h}$$

$$= \frac{2h}{h}$$

$$= \frac{h(2)}{h}$$

$$= 2$$

**Solution**