

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

$$k(n) = 5n + 4$$

$$k(n) = 5n + 4$$

$$k(n+h) = 5(h+n) + 4$$

$$= 5h + 5n + 4$$

$$\frac{k(n+h) - k(n)}{h} = \frac{(5h + 5n + 4) - (5(n+1) + 4)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

$$k(n) = 5n + 4$$

$$k(n+h) = 5(h+n) + 4$$

$$= 5h + 5n + 9$$

$$\frac{k(n+h) - k(n)}{h} = \frac{(5h + 5n + 9) - (5n + 4)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

$$k(n) = 5n + 4$$

$$k(n+h) = 5(h+n) + 4$$

$$= 5h + 5n + 4$$

$$\frac{k(n+h) - k(n)}{h} = \frac{(5h + 5n + 4) - (5n + 4)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

$$k(n) = 5n + 4$$

$$k(n+h) = 5(h+n) + 4$$

$$= 5h + 5n - 1$$

$$\frac{k(n+h) - k(n)}{h} = \frac{(5h + 5n + 14) - (5n + 4)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

Solution