

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

$$a(k) = 3k + 3$$

$$a(k) = 3k + 3$$

$$a(k+h) = 3(h+k) + 3$$

$$= 3h + 3k + 3$$

$$\frac{a(k+h) - a(k)}{h} = \frac{(3h + 3k + 3) - (3(k+1) + 3)}{h}$$

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

$$a(k) = 3k + 3$$

$$a(k+h) = 3(h+k) + 3$$

$$= 3h + 3k + 6$$

$$\frac{a(k+h) - a(k)}{h} = \frac{(3h + 3k + 6) - (3k + 3)}{h}$$

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

$$a(k) = 3k + 3$$

$$a(k+h) = 3(h+k) + 3$$

$$= 3h + 3k + 3$$

$$\frac{a(k+h) - a(k)}{h} = \frac{(3h + 3k + 3) - (3k + 3)}{h}$$

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

$$a(k) = 3k + 3$$

$$a(k+h) = 3(h+k) + 3$$

$$= 3h + 3k$$

$$\frac{a(k+h) - a(k)}{h} = \frac{(3h + 3k + 9) - (3k + 3)}{h}$$

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

Solution