

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

$$b(x) = 2x + 1$$

$$b(x) = 2x + 1$$

$$b(x+h) = 2(h+x) + 1$$

$$= 2h + 2x + 1$$

$$\frac{b(x+h) - b(x)}{h} = \frac{(2h + 2x + 1) - (2(x+1) + 1)}{h}$$

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

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

$$= 2$$

$$b(x) = 2x + 1$$

$$b(x+h) = 2(h+x) + 1$$

$$= 2h + 2x + 3$$

$$\frac{b(x+h) - b(x)}{h} = \frac{(2h + 2x + 3) - (2x + 1)}{h}$$

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

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

$$= 2$$

$$b(x) = 2x + 1$$

$$b(x+h) = 2(h+x) + 1$$

$$= 2h + 2x + 1$$

$$\frac{b(x+h) - b(x)}{h} = \frac{(2h + 2x + 1) - (2x + 1)}{h}$$

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

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

$$= 2$$

$$b(x) = 2x + 1$$

$$b(x+h) = 2(h+x) + 1$$

$$= 2h + 2x - 1$$

$$\frac{b(x+h) - b(x)}{h} = \frac{(2h + 2x + 5) - (2x + 1)}{h}$$

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

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

$$= 2$$

Solution