

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

$$m(x) = 3x + 1$$

$$m(x) = 3x + 1$$

$$m(x+h) = 3(h+x) + 1$$

$$= 3h + 3x + 1$$

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

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

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

$$= 3$$

$$m(x) = 3x + 1$$

$$m(x+h) = 3(h+x) + 1$$

$$= 3h + 3x + 4$$

$$\frac{m(x+h) - m(x)}{h} = \frac{(3h + 3x + 4) - (3x + 1)}{h}$$

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

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

$$= 3$$

$$m(x) = 3x + 1$$

$$m(x+h) = 3(h+x) + 1$$

$$= 3h + 3x + 1$$

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

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

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

$$= 3$$

$$m(x) = 3x + 1$$

$$m(x+h) = 3(h+x) + 1$$

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

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

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

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

$$= 3$$

Solution