

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

$$p(q) = 3q + 5$$

$$p(q) = 3q + 5$$

$$p(q+h) = 3(h+q) + 5$$

$$= 3h + 3q + 5$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(3h + 3q + 5) - (3(q+1) + 5)}{h}$$

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

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

$$= 3$$

$$p(q) = 3q + 5$$

$$p(q+h) = 3(h+q) + 5$$

$$= 3h + 3q + 8$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(3h + 3q + 8) - (3q + 5)}{h}$$

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

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

$$= 3$$

$$p(q) = 3q + 5$$

$$p(q+h) = 3(h+q) + 5$$

$$= 3h + 3q + 5$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(3h + 3q + 5) - (3q + 5)}{h}$$

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

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

$$= 3$$

$$p(q) = 3q + 5$$

$$p(q+h) = 3(h+q) + 5$$

$$= 3h + 3q + 2$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(3h + 3q + 11) - (3q + 5)}{h}$$

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

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

$$= 3$$

**Solution**