

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

$$p(q) = 7q + 8$$

$$p(q) = 7q + 8$$

$$p(q+h) = 7(h+q) + 8$$

$$= 7h + 7q + 8$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(7h + 7q + 8) - (7(q+1) + 8)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

$$p(q) = 7q + 8$$

$$p(q+h) = 7(h+q) + 8$$

$$= 7h + 7q + 15$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(7h + 7q + 15) - (7q + 8)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

$$p(q) = 7q + 8$$

$$p(q+h) = 7(h+q) + 8$$

$$= 7h + 7q + 8$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(7h + 7q + 8) - (7q + 8)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

$$p(q) = 7q + 8$$

$$p(q+h) = 7(h+q) + 8$$

$$= 7h + 7q + 1$$

$$\frac{p(q+h) - p(q)}{h} = \frac{(7h + 7q + 22) - (7q + 8)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

**Solution**