4. **(a)** 120, 720 **(b)** 8, 0 **(c)** – 5, – 10

(d) 1; ½ **(e)** – 4; – 10 **(f)** 50, 72

Extending a straightforward number or diagrammatic pattern and determining its formula

One step Patterns

1. **(a)** 4, 8, 12, 16, 20, 24 **(b)** 4 **(c)** 4

(d) B = 4N **(e)** 12

2. **(a)** 8, 16, 24, 32, 40, 48 **(b)** 8 **(c)** 8

(d) L = 8S **(e)** 10

3. **(a)** 6, 12, 18, 24, 30, 36 **(b)** 6 **(c)** 6

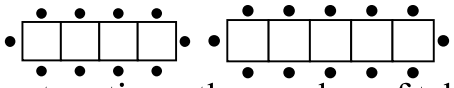
(d) S = 6H **(e)** 7

4. **(a)** 5, 10, 15, 20, 25, 30 **(b)** 5 **(c)** 80 **(d)** 20

5. **(a)** 16 **(b)** 160 **(c)** 8

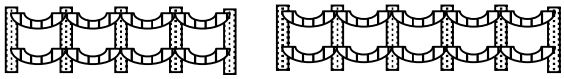
Extending a straightforward number or diagrammatic pattern and determining its formula

Two step Patterns

1. **(a)**  **(b)** 4, 6, 8, 10, 12, 22, 30

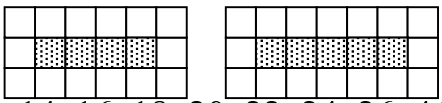
(c) two times the number of tables plus two

(d) P = 2T + 2 **(e)** 21

2. **(a)**  **(b)** 2, 4, 6, 8, 10, 38, 48

(c) Two times the number of posts subtract 2

(d) L = 2P – 2 **(e)** 98 **(f)** 51

3. **(a)**  **(b)** 20 **(c)** 24

(d) 14, 16, 18, 20, 22, 24, 26, 46 **(e)** P = 2R + 6 **(f)** 73

4. **(a)** 6, 10, 14, 18, 42, 82, 202 **(b)** W = 4C + 2 **(c)** 21

5. **(a)** 13, 16, 19, 22, 25, 28 **(b)** B = 3P + 10 **(c)** 64 **(d)** 30