

2.

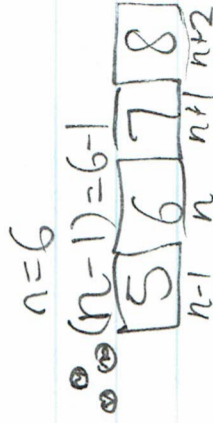


$$(n-1) + n + (n+1) + (n+2) = 10$$

$$3n - (n+2) = 10$$

$$2n - 2 = 10$$

$$2n = 10 + 2$$



3.

$$(a+d) - (b+c) = 0$$

Because:

$$a+d = (n-1) + (n+2)$$

$$= (n-1) + n + 2$$

$$= (2n+1)$$

$$b+c = (n) + (n+1)$$

$$= (n+n+1)$$

$$= (2n+1)$$

$$\therefore (2n+1) - (2n+1) = 0$$

Example

$$(a+d) - (b+c)$$

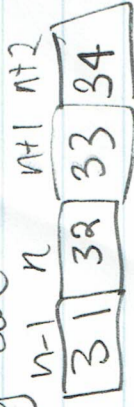
$$= (5+8) - (6+7)$$

$$= (13) - (13)$$

$$= 0$$

Starting No. of consecutive numbers

(a) They are



Methods:

$$(n-1) + n + (n+1) + (n+2) = 130$$

$$4n+2 = 130$$

$$4n = 130 - 2$$

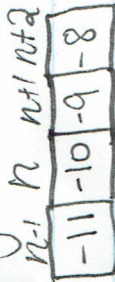
$$4n = 128$$

$$n = \frac{128}{4}$$

$$n = 32$$

(b)

They are



Methods:

$$(n-1) + n + (n+1) + (n+2) = (-38)$$

$$4n+2 = (-38)$$

$$4n = (-38) - 2$$

$$4n = (-40)$$

$$n = (-10)$$

4. $a+b+c-d$

The Four Consecutive Numbers	$a+b+c-d$
0, 1, 2, 3	0
4, 5, 6, 7	8 = $a \times 2$
24, 25, 26, 27	48 = $2a$
55, 56, 57, 58	110 = $2a$

Proof

$$\begin{array}{cccc} n-1 & n & n+1 & n+2 \\ a & b & c & d \end{array}$$

$$a+b+c-d$$

$$= (n-1) + n + (n+1) -$$

$$-(n+2)$$

$$= n-1+n+n+1-n-2$$

$$= 2n-2$$

$$= 2(n-1)$$

$$= 2a$$

Algebra

Examples

$$\begin{array}{cccc} 0 & 1 & 2 & 3 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ a & b & c & d \end{array}$$

$$a+b+c = 0+1+2 = 3$$

$$3-3 = 0$$

$$\begin{array}{cccc} 4 & 5 & 6 & 7 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ a & b & c & d \end{array}$$

$$a+b+c = 4+5+6 = 15$$

$$15-7 = 8$$

$$24, 25, 26, 27$$

$$a, b, c, d$$

$$a+b+c = 24+25+26 = 75$$

$$75-27 = 48$$

$$55, 56, 57, 58$$

$$a, b, c, d$$

$$a+b+c = 55+56+57 = 168$$

$$168-58 = 110$$

$\frac{P2}{2}$