NTS GAT General Past Papers Questions

Quantitative – Exam No. 23

Series Number Sequence Problems

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Exercise:

Complete the following sequences:

1. 1, 5, 9, 13, _____

Solution:

$$1 + 4 = 5$$
$$5 + 4 = 9$$
$$9 + 4 = 13$$
$$13 + 4 = 17$$

2. 1, 4, 9, 16, _____ (PP)

Solution:

$$(1)^2 = 1$$
$$(2)^2 = 4$$
$$(3)^2 = 9$$
$$(4)^2 = 16$$
$$(5)^2 = 25$$

3. 1, 2, 4, 7, 11, _____

Solution:

$$1 + 1 = 2$$
$$2 + 2 = 4$$
$$4 + 3 = 7$$
$$7 + 4 = 11$$

$$11 + 5 = 16$$

4. 64, 32, 16, 8, 4, _____

Solution:

$$\frac{64}{2} = 32$$

$$\frac{32}{2} = 16$$

$$\frac{16}{2} = 8$$

$$\frac{8}{2} = 4$$

$$\frac{4}{2} = 2$$

5. -18, -10, -2, _____ (PP)

Solution:

$$-18 + 8 = -10$$

$$-10 + 8 = -2$$

$$-2 + 8 = 6$$

6. 1, 2, 2, 4, 8, 32, _____ (PP)

Solution:

$$1 \times 2 = 2$$

$$2 \times 2 = 4$$

$$2 \times 4 = 8$$

$$4 \times 8 = 32$$

$$8 \times 32 = 256$$

7. 15, 20, 30, 45, 65, _____

Solution:

$$15 + 5 = 20$$

$$20 + 10 = 30$$
$$30 + 15 = 45$$
$$45 + 20 = 65$$
$$65 + 25 = 90$$

8. 1, 8, 27, 64, _____

Solution:

$$(1)^3 = 1$$
$$(2)^3 = 8$$
$$(3)^3 = 27$$
$$(4)^3 = 64$$
$$(5)^3 = 125$$

9. 4, 12, _____ , 28, 36

Solution:

$$4 + 8 = 12$$
$$12 + 8 = 20$$
$$20 + 8 = 28$$
$$28 + 8 = 36$$

10.-9, -5, _____ , 3, 7 (PP)

Solution:

$$-9 + 4 = -5$$
$$-5 + 4 = -1$$
$$-1 + 4 = 3$$
$$3 + 4 = 7$$

11.4, 5, 8, 13, 20, _____

Solution:

$$4 + 1 = 5$$

$$5 + 3 = 8$$

$$8 + 5 = 13$$

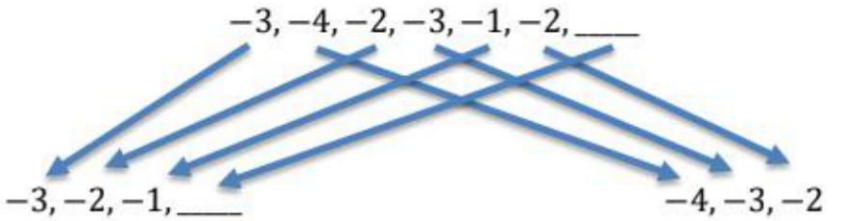
$$13 + 7 = 20$$

$$20 + 9 = 29$$

12.-3, -4, -2, -3, -1, -2, _____ (PP)

Solution:

Write the terms in the alternative positions as follows:



$-3 + 1 = -2$

$-2 + 1 = -1$

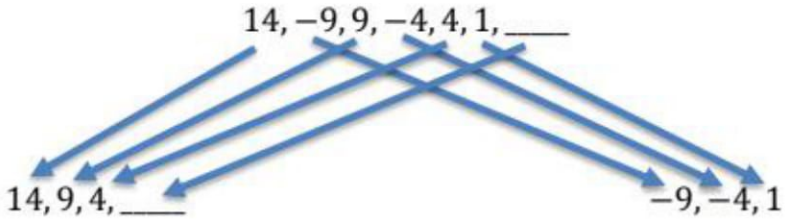
$-1 + 1 = 0$

No need to solve it further

13.14, -9, 9, -4, 4, 1, _____ (PP)

Solution:

Write the terms in the alternative positions as follows:



$14 - 5 = 9$

$9 - 5 = 4$

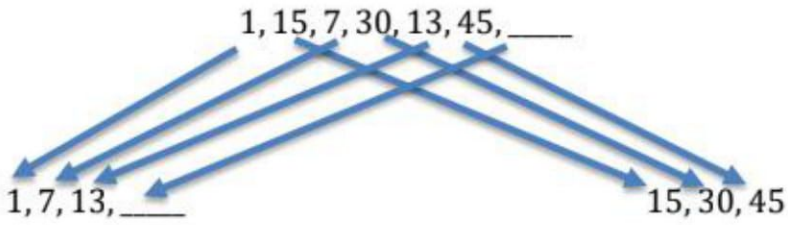
$4 - 5 = -1$

No need to solve it further

14.1, 15, 7, 30, 13, 45, _____

Solution:

Write the terms in the alternative positions as follows:



$1 + 6 = 7$

$7 + 6 = 13$

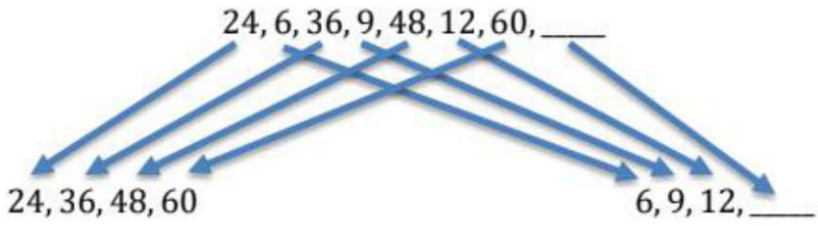
$13 + 6 = 19$

No need to solve it further

15. 24, 6, 36, 9, 48, 12, 60, _____

Solution:

Write the terms in the alternative positions as follows:



No need to solve it further

$6 + 3 = 9$

$9 + 3 = 12$

$12 + 3 = 15$

16. Find the next number in the following series: (PP)

2, 16, 1024, _____

Solution:

This series is following the pattern:

$$(2)^1 = 2$$

$$(2)^{(1\times2)+2} = (2)^{2+2} = (2)^4 = 16$$

$$(2)^{(4\times2)+2} = (2)^{8+2} = (2)^{10} = 1{,}024$$

$$(2)^{(10\times2)+2} = (2)^{20+2} = (2)^{22} = 4{,}194{,}304$$