# Greek Orthodox Patriarchate School
## International - Fuhies

## Worksheet

| Name: | | Subject: | |
|-------|--|----------|--|
| Class: | | Date: | |

**4** , **8** , **12** **16** , ☐ , ☐ , ☐ .........

**Q1)The sequence continues in the same way.**

**Complete the sequence, then answer the following questions.**

**a) Write down the 1st term of the sequence……………..**

**b) Write down the 5th term of the sequence……………..**

**c) Write down the 6th term of the sequence……………..**

**d) Write down the 10th term of the sequence……………..**

**e) Write down the 20th term of the sequence……………..**

**f) What is the term-to-term rule?.................................**

**g) What is the position to term rule?.............................**

**Q2) Complete the following sequences:**

5, 0, -5, ___, ____, ____, _____.          **Term to term rule _____**

20, 10, 0, ___, ____, ____, _____.          **Term to term rule _____**

7, 5, 3, ___, ____, ____, _____.          **Term to term rule _____**

11, 8, 5, ___, ____, ____, _____.           **Term to term _____**

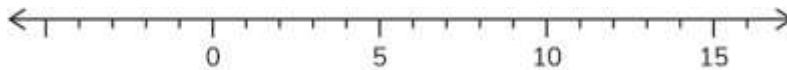4, 2, 0, ___, ____, ____, _____.           **Term to term _____**

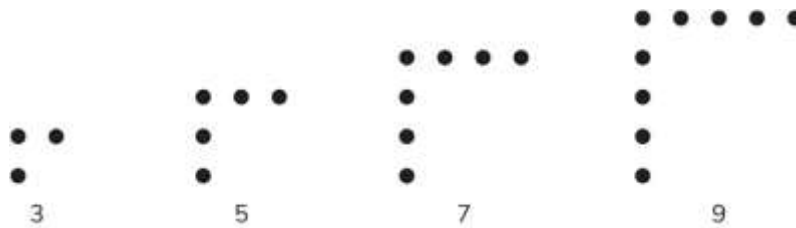Q3) A sequence starts at 16.

5 is subtracted each time.
What is the first number in the sequence that is less than zero?

[ ]

Tip: You might find the number line helpful.



Q4) Look at the sequence below. The number of dots in each pattern is written below it.



3      5      7      9

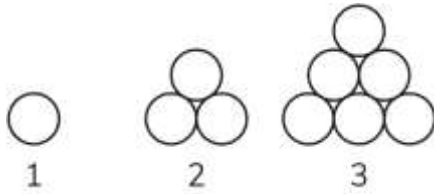a) Write down the next four numbers in the sequence.

3, 5, 7, 9, [ ], [ ], [ ], [ ]

b) What is the term-to-term rule?

Tip: Look at how you get from one term to the next.

Q5) Look at this sequence of patterns.



1    2    3

a    Draw the next pattern in the sequence.

c) Complete the table for the sequence.

| Pattern number | Number of circles |
| --- | --- |
| 1 | 1 |
| 2 | 3 |
| 3 | 6 |
| 4 | |
| 5 | |
| 6 | |

d) What is the name for this sequence of patterns?

Tip: Think about the shape of the patterns.

_____

Q6) Write the same number in both boxes to make this statement correct.

☐ × ☐ = 16

**Q7) Here is a part of a sequence.**

| 5 | 10 | 15 | 20 | | | |

**The sequence continues in the same way.**

**Complete the sequence, then answer the following questions.**

**a) Write down the 5th term of the sequence……………..**

**b) Write down the 8th term of the sequence……………..**

**c) Write down the 10th term of the sequence……………..**

**d) Write down the 20th term of the sequence……………..**

**e) Lily says that the number 520 will be in the sequence,**

**Do you think she is right?**

☐ Yes ☐ No

**Explain your answer.**

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**Q8) Write the sequence of square numbers. (1-144).**

**Q9) Write the sequence of triangular numbers. (1-55)**

**Q10) Write the sequence of the cube numbers. (1-125)**

**Q12) Circle all the cube numbers.**

1   4   8   25   16   27   49   64   100   125

**Q13) Write a square number in each box to make the statement correct.**

☐ + ☐ = ☐

## Factors and multiples

**Q1) Find the factors of each number.**

**a) 9**

**b) 10**

**c) 18**

**d) 24**

**e) 36**

**2) Write all the factors of the following numbers and decide if the number is a**

**prime or composite.**

**a) 27:** …………………………………………………..

**b) 25:** …………………………………………………..

**c) 17:** …………………………………………………..

**d) 12:** ………………………………………………….

**e) 7:** …………………………………………………

**Q3) Find all the factors of the following numbers.**

a) 15

____, ____, ____, ____

b) 24

____, ____, ____, ____, ____, ____, ____, ____

c) 30

____, ____, ____, ____, ____, ____, ____, ____

d) 12

____, ____, ____, ____, ____, ____

**Q4)**

a)     Find all the common factors of 12 and 15

_____

Find the GCF (Greatest common factor) of 12 and 15.

_____

b)  Find all the common factors of 15 and 30

_____

Find the GCF (Greatest common factor) of 15 and 30.

_____

c)  Find all the common factors of 6 and 9

_____

Find the GCF (Greatest common factor) of 6 and 9.

_____

**Prime numbers are the numbers that has only 2 factors 1 and the number itself.**

# Prime Numbers

A natural number greater than 1 with no divisors other than 1 and itself.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Remember these facts about Prime Numbers!
There are no even numbers except 2.
There are no prime numbers ending in 5, except 5.
The digits can't add up to 3 except 3 (digital root).

**Composite numbers: the numbers that has more than 2 factors.**

**Q3) Circle all the prime numbers**

1    2    6    8    9    10    11    15    17    36    37

**Q4) a) Find the first three common multiples of 4 and 5.**

Multiples of 4: _____, _____, _____, ____, ____, _____, _____, _____, ____, _____

Multiples of 5: _____, _____, _____, ____, ____, _____, _____, _____, ____, _____

The first common multiple: _____

The first three common multiples: _____, _____, _____,

****Important note: to find the first n common multiples first we list the first 10 multiples then we find the first common multiple and count by the first common multiple.

**b) Find the first three common multiples of 3 and 7.**

Multiples of 3: _____, _____, _____, ____, ____, _____, _____, _____, ____, _____

Multiples of 7: _____, _____, _____, ____, ____, _____, _____, _____, ____, _____

The first common multiple: _____

The first three common multiples: _____, _____, _____,


**c)  Find the first three common multiples of 6 and 10.**

Multiples of 6: _____, _____, _____, ____, ____, _____, _____, _____, ____, _____

Multiples of 10: ____, _____, _____, ____, ____, _____, _____, _____, ____, _____

The first common multiple: _____

The first three common multiples: _____, _____, _____,