

Sequences

Warmup

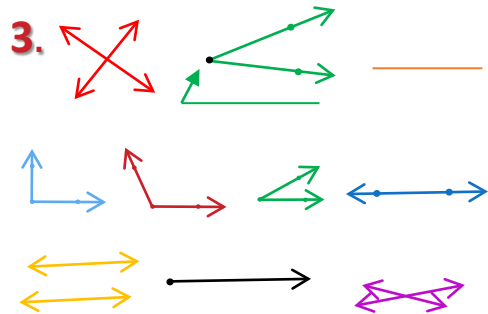
1.

$$-4 + -2 = \underline{\hspace{2cm}}$$

$$-7 - -5 = \underline{\hspace{2cm}}$$

$$-2 + 8 = \underline{\hspace{2cm}}$$

$$-9 - -11 = \underline{\hspace{2cm}}$$

2. *Solve and Check*
 $x + 2.5 = 8$ **4.** What is the greatest common factor (GCF) of 28 and 35?**5.** What are the multiples of 5 from 5 to 50?

- I. Arithmetic Sequences
- II. Geometric Sequences
- III. Other Sequences

Homeschool



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Pre-Algebra and Geometry I

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I. Arithmetic Sequences

Grace's Book Store



Sequence: A sequence is an ordered list of numbers

3, 6, 9, 12, ...

Term: Each number in a sequence is called a term

Arithmetic Sequence: A sequence in which each term is found by adding the same number to the previous term. (The number being added to calculate each term is called the "common difference")

5, 9, 13, 17, 21, ...

The first term is: _____ The common difference is: _____

Write the next three terms in the sequence.

9, 15, 21, 27, _____, _____, _____, ...

The first term is: _____ The common difference is: _____

Is it an arithmetic sequence?

- ☐ Yes
- ☐ No

6. Write the next three terms in the sequence.

6, 14, 22, _____, _____, _____, ...

Is it an arithmetic sequence?

- ☐ Yes
- ☐ No

Geometric Sequence: A sequence in which each term is found by multiplying the same number to the previous term. (The number being multiplied to calculate each term is called the "common ratio")

4, 8, 16, 32, 64, 128, ...

The first term is: _____ The common ratio is: _____

Write the next three terms in the sequence.

6, 18, 54, _____, _____, _____, ...

The first term is: _____ The common ratio is: _____

Is it a geometric sequence?

- ☐ Yes
- ☐ No

8. Write the next three terms in the sequence.

1, 4, 16, ____, ____, ____, ...

Is it a geometric sequence?

- ☐ Yes
- ☐ No

III. Other Sequences

1, 2, 6, 24, ...

The sequence is

- ☐ arithmetic
- ☐ geometric
- ☐ neither

The first term is: _____

The pattern is: _____

1, 1, 2, 3, 5, 8, ...

The sequence is

- ☐ arithmetic
- ☐ geometric
- ☐ neither

The first term is: _____

The pattern is: _____

