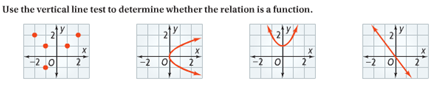
**College Algebra 1**

**4.7 Sequences and Functions**

*Objective: To identify and extend patterns in sequences*

*To represent arithmetic sequences using function notation*

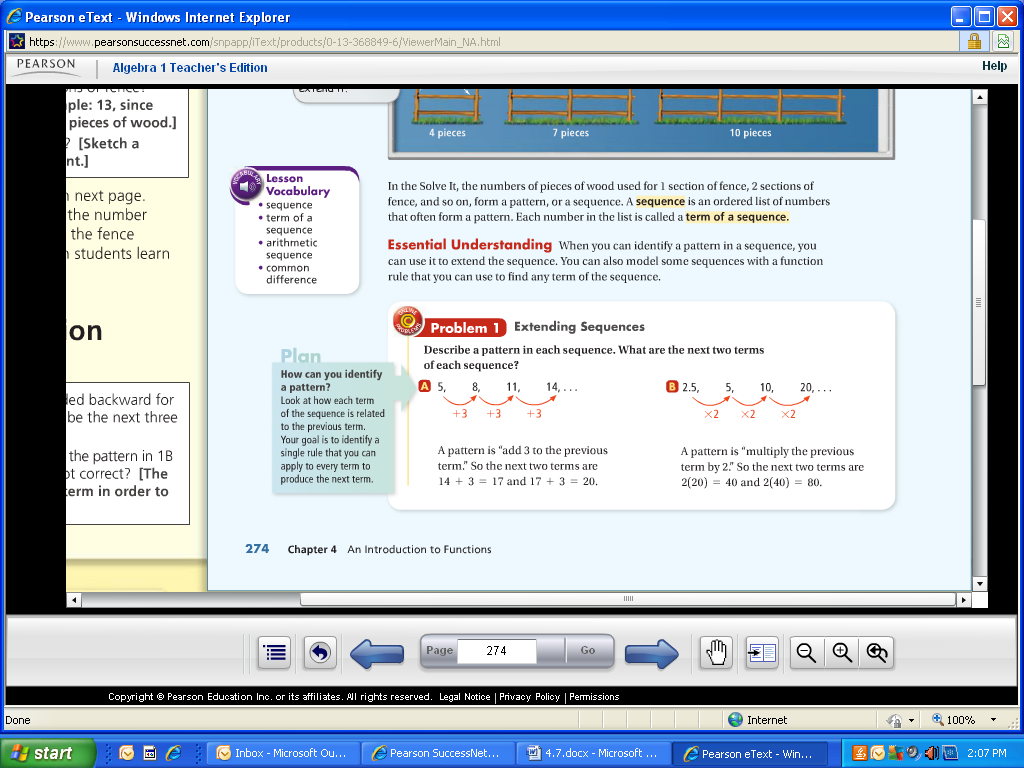
Starter:

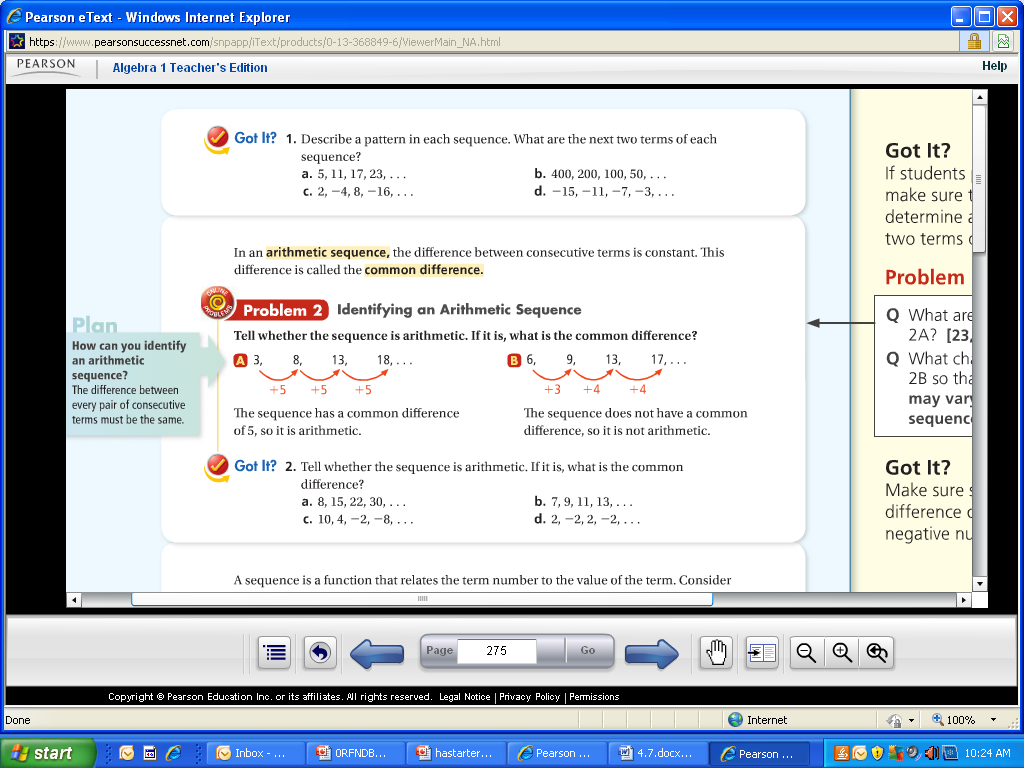
1. What is the domain and range of the relation? {(-1,2)(-3,6)(0,-4)(3,-4)(5,4)}
2. Use the vertical line test to determine whether the relation is a function.
3. Come up with a relation of at least 4 coordinate points that is not a function.

**Vocabulary:**

* A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an ordered list of numbers that often form a pattern.
* Each number in the list is known as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Extending a Sequence:** First determine the pattern of the terms listed, and use that pattern to further extend the sequence.

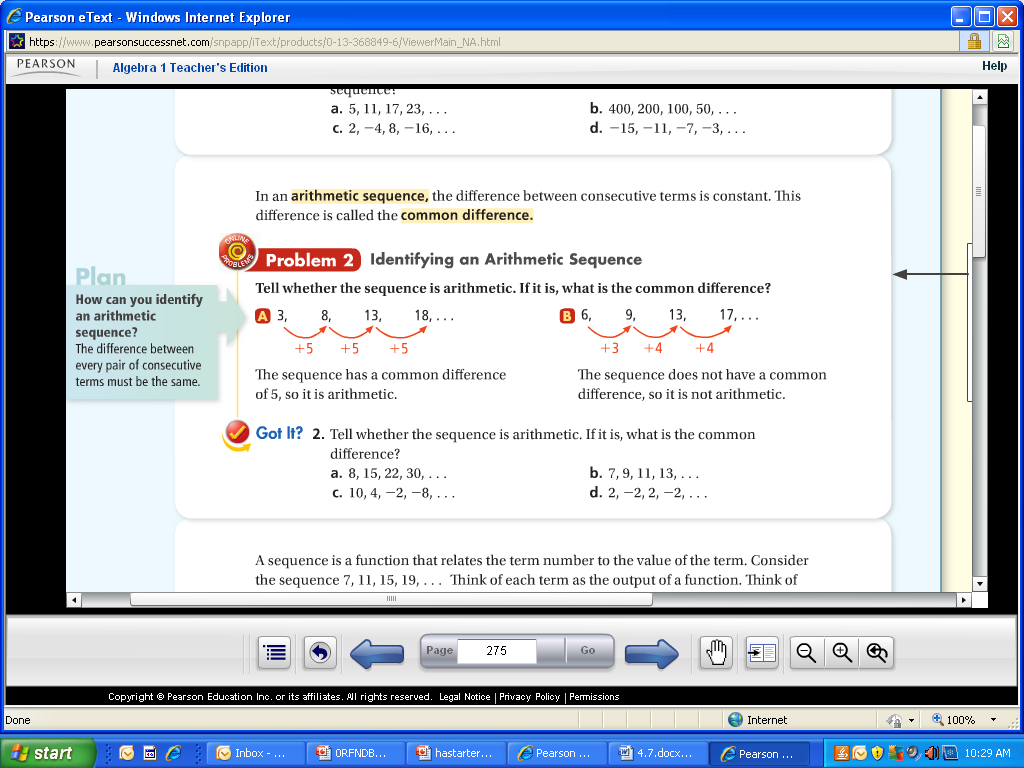


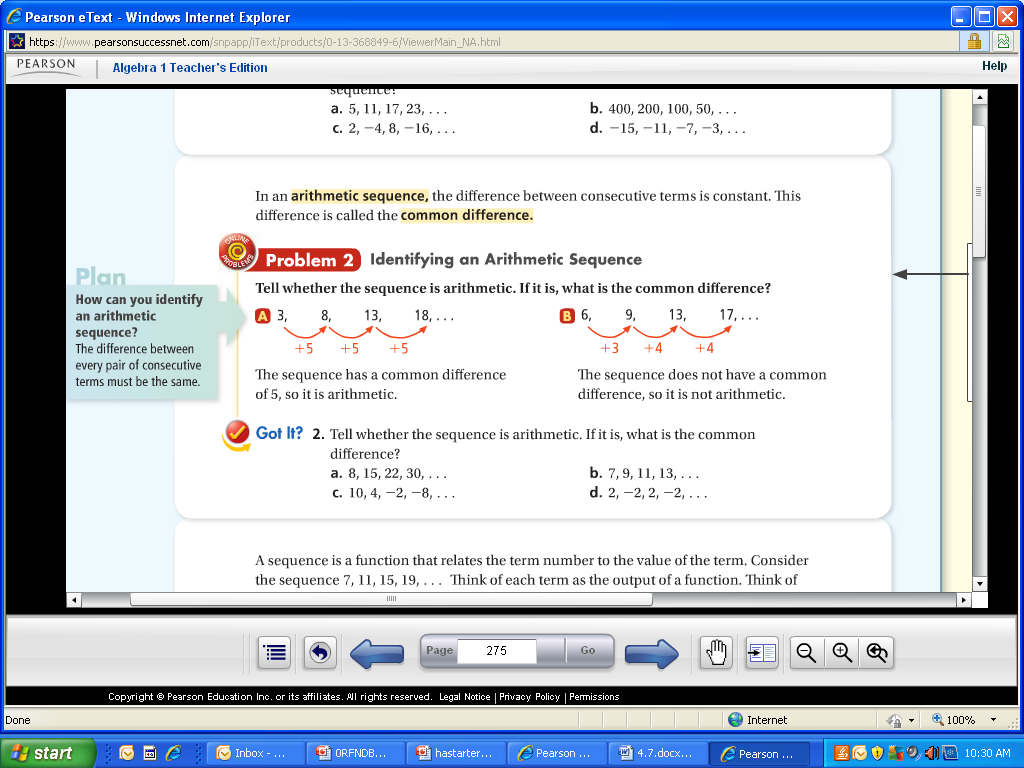


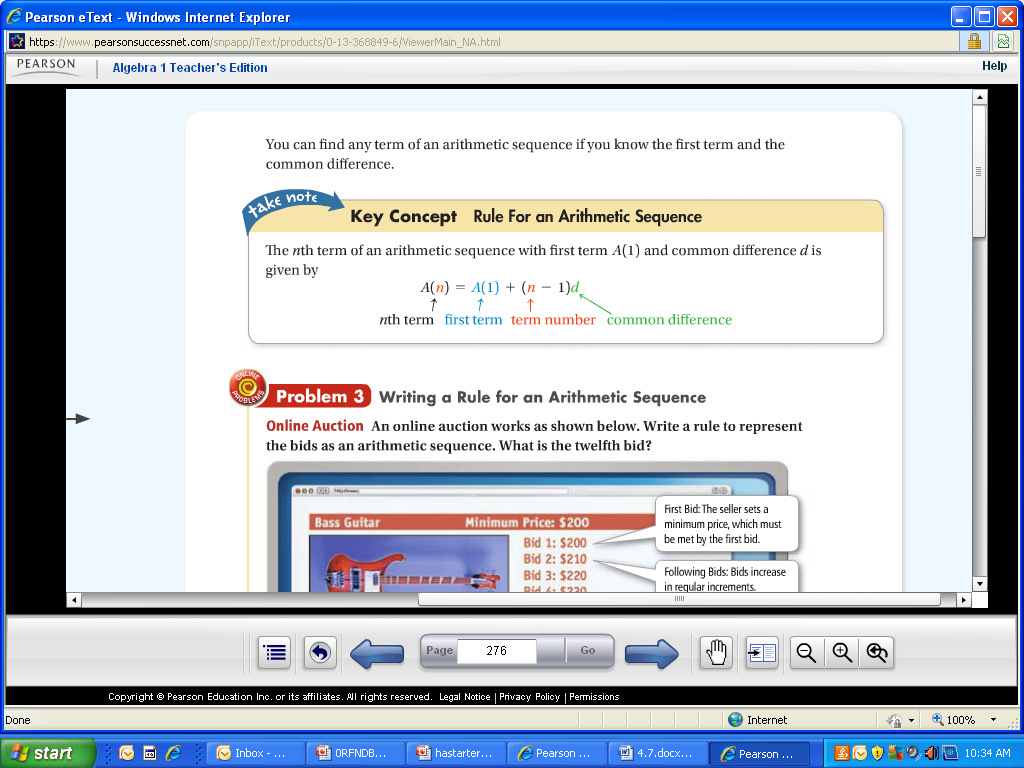
Hw: Section 4.7 p. 27 #9-17, 30-35 (write explicit equation as well)

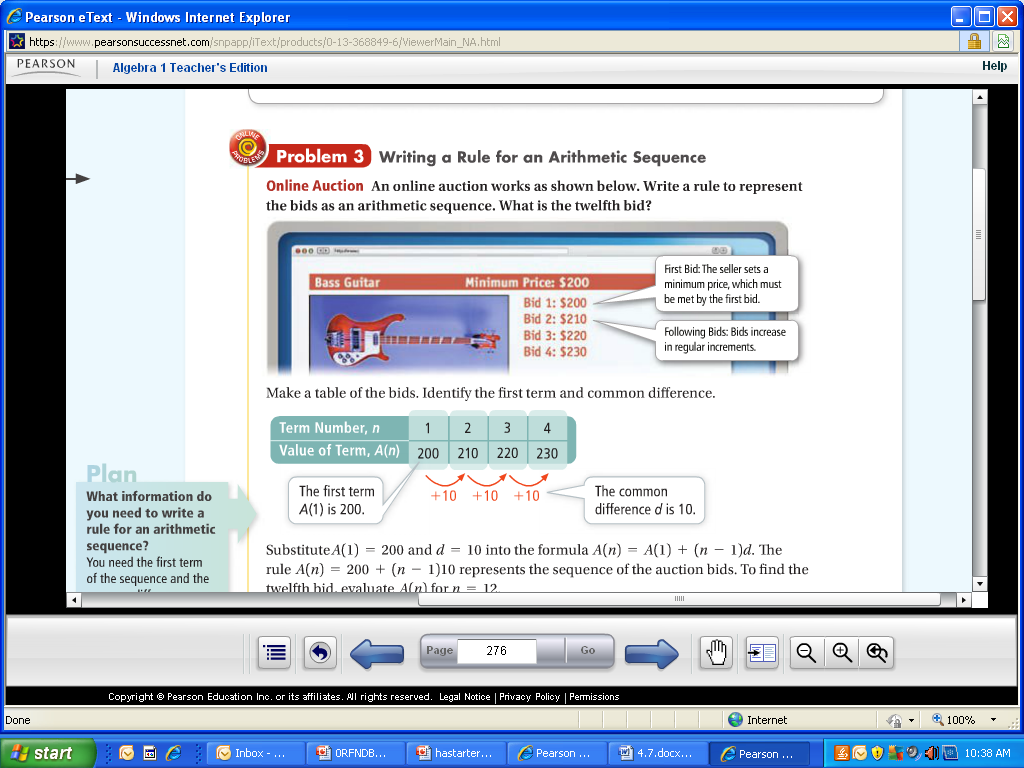
In an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the difference between consecutive terms is constant.

The difference is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.









Make a table of the bids. Identify the common difference.

Use the rule for an arithmetic sequence and write a rule for the online auction. Then using that rule, find the value of the 12th bid.

