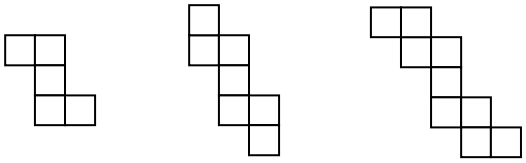
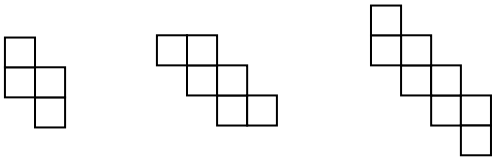
**Tutor-USA.com Worksheet**
**Geometry**
**Patterns & Inductive Reasoning**

**Name:** _____
**Date:** _____

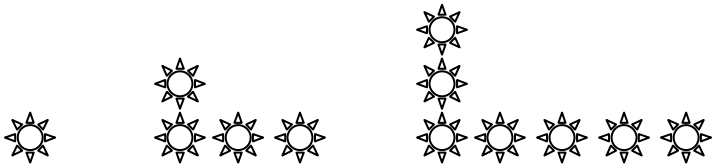
1) If the pattern continues, how many squares are in the 7th figure?



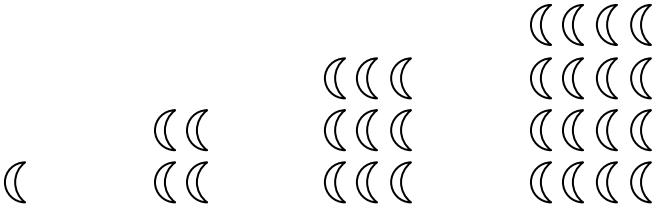
2) If the pattern continues, how many squares are in the 9th figure?



3) If the pattern continues, how many suns are in the 8th figure?



4) If the pattern continues, how many moons are in the 12th figure?



**Explain the pattern. Then find the next three numbers in each pattern.**

5) 2, 4, 6, 8, __, __, __

6) 4, 0, 6, 2, __, __, __

7) 3, -3, 3, -3, __, __, __

8) 1, 1, 2, 3, 5, 8, 13, __, __, __

9) A gumball machine gives you no gum if you insert 5¢, 5 gumballs if you insert 10¢, 10 gumballs if you insert 15¢, and 15 gumballs if you insert 20¢. How many gumballs could you expect to receive if you insert 35¢?

10) A pizza shop offers special prices for groups dining together. For the pizza buffet, the shop charges $10 for one person, $20 for two people, $29 for three, $37 for four, and so on. How much does a buffet dinner for 10 people cost? How much does the group save by eating together rather than alone?

*Answer Key*

1. 17
2. 20
3. 22
4. 144
5. + 2;  10, 12, 14
6. – 4, + 6;  8, 4, 10
7. + 6, – 6;  3, -3, 3
8. Fibonacci Sequence - each subsequent number is equal to the sum of the previous two numbers of the sequence itself.  21, 34, 55
9. 30
10. $64, $36