Name:

Date:

Lesson 6.1.2 Homework

* **6-12.** Graph shapes A, B, and C as described below.
	1. Shape A is a triangle with vertices (1, 1), (3, 3), and (2, 4).



* 1. Shape B is a square with vertices (2, –1), (4, –1), (2, –3), and (4, –3).



* 1. Shape C is a rectangle with vertices (–3, 1), (–3, 4), (–1, 4), and (–1, 1).

**6-13.**On the same grid you used in problem 6-12, translate triangle A four units right and three units up to create triangle D.  Write the coordinates of the new vertices.

**6-14.** Graph each equation below on the same set of axes and label the point of intersection with its coordinates.

y = 2x + 3              y = x + 1

**6-15.**Shooter Marilyn is the Spartans’ best free-throw shooter.  She normally makes three out of every four shots.  In an upcoming charity event, Shooter will shoot 600 free‑throws.  If he makes over 400 baskets, the school wins $1000.  Should the Spartans expect to win the cash for the school?  Show and organize your work.

**6-16.** Examine the tile pattern shown at right.

* 1. On graph paper, draw Figure 0 and Figure 4.
	2. How many tiles will Figure 10 have? Justify your answer.
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**6-17.** GETTING IN SHAPE

Frank weighs 160 pounds and is on a diet to gain two pounds a week so that he can make the football team.  John weighs 208 pounds and is on a diet to lose three pounds a week so that he can be on the wrestling team in a lower weight class.

* 1. If Frank and John can meet these goals with their diets, when will they weigh the same, and how much will they weigh at that time?
	2. Clearly explain your method.