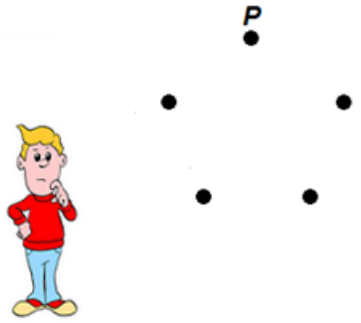
NOETIC LEARNING
PROBLEM OF THE WEEK

SEPTEMBER 7, 2015

THE PROBLEM:

There are 5 points in the following picture. How many distinct triangles can be drawn using point P and two other points?



(Source: Noetic Learning Math Contest 2015 Spring, Grade 5)

NOETIC LEARNING

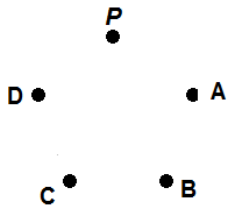
PROBLEM OF THE WEEK

SEPTEMBER 7, 2015

THE SOLUTION:

In other words, the question asks us how many different ways we can pick 2 points (out of the 4 remaining points).

First we will label the point.



Then we will use an organized list to find all possible ways to pick 2 out of the 4 remaining points (A, B, C & D).

- Point A & point B (ΔPAB)
- Point A & point C (ΔPAC)
- Point A & point D (ΔPAD)
- Point B & point C (ΔPBC)
- Point B & point D (ΔPBD)
- Point C & point D (ΔPCD)

THE ANSWER: 6 TRIANGLES