Name: _____ **Date:** _____

Air Pressure Chart - Worksheet 3 Answers

Calculate the force exerted by air pressure for each of the squares listed below:

Square (inches)	Area (in^2)	Force Exerted by Air at Sea Level (pounds)
1 x 1	1	15
2 x 2	4	60
3 x 3	9	135
4 x 4	16	240
5 x 5	25	375
6 x 6	36	540
7 x 7	49	735
8 x 8	64	960
9 x 9	81	1,215
10 x 10	100	1,500

HINT: At sea level, air pressure = 15 psi (pounds per square inch).

P = F/A therefore F = P *A

At sea level, air pressure equals ~15 psi (pounds per square inch).

Therefore, the force exerted by air on a 1 x 1 inch square is the area (1 in^2) times the pressure (15 psi) or 15 pounds.

On a 2 x 2 square, the pressure exerted is 4 in^2 * 15 psi or 60 pounds, etc.