Pre-Calc 1-2 Warmup

1)

Ms. Field counts chapter tests as 40% of a student's grade, homework as 20%, quizzes and class work as 20%, and final exams as 20%. Lydia has an average of 89 before the final. What score must she get correct on the final to bring her grade up to 90?

$$\frac{.8(89) + .2X}{1} = 90$$

$$71.2 + .2X = 90$$
$$-71.2 \qquad\qquad -71.2$$
$$\frac{.2X}{.2} = \frac{18.8}{.2}$$

$$\boxed{X = 94 \text{ on Final}}$$

2)

Kyle's college computes grade point averages (GPA) by assigning points for grades; A = 4.0, B+ = 3.5, B = 3.0, C+ = 2.5, C = 2.0, D = 1.0, and F = 0. It then weights the grades by the number of semester hours for each course. Compute Kyle's semester GPA based on the report at the right.

Course	Grade	Hours
Writing	B+ 3.5	2
Biology	C+ 2.5	6
French II	A 4.0	4
Calculus	B 3.0	5

17 total

$$\frac{2(3.5) + 6(2.5) + 4(4.0) + 5(3.0)}{(2 + 6 + 4 + 5)}$$

$$= \frac{53}{17} = \boxed{3.12 \text{ GPA}}$$

3)

A person made the following purchases of stock from time to time.

Shares	5000	10,000	7500	6000	11,000	8000	10,000	5000
Price per Share ($)	49.25	57.50	62.25	82.50	71.00	73.25	77.75	87.25

Calculate the average cost per share. ____$69.82____

$$\frac{(5000)(49.25) + (10,000)(57.50) + \cdots + (5000)(87.25)}{62,500 \text{ total Shares}}$$

$$\frac{4,363,875}{62,500} = \$69.82$$

4) Consider the following list: $\overset{1}{12}, \overset{2}{8}, \overset{3}{2}, \overset{4}{9}, 11, 15, 20, 7$. Let x_i be the ith element in the list. Evaluate.

$$\sum_{i=1}^{4} x_i$$

$12 + 8 + 2 + 9 = \boxed{31}$

5) The chart below gives information about the heights of team members on the varsity basketball team.

Number of members	Height (inches)
1	66
1	68
2	70
3	72
2	74
2	76
1	84

a) How many members does the team have?   12

b) Find the mean height.

$\dfrac{874}{12} = 72.8\overline{3}$ inches

c) Find the median height.   72 inches