

Problems of the Week # 13

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Circle the one best answer. Justify your answer by showing all work below.

61. When  $x = -3$ , find the value of this expression:  $5\sqrt{x+3} - 2 \cdot \frac{x-3}{x-3}$

- A. -3      B. -2      C. 2      D. 3      E. The value is undefined.

62. Solve  $10x^2 = 5x$ .

- A.  $\left\{\frac{1}{2}\right\}$       B.  $\left\{\frac{1}{2}, 0\right\}$       C.  $\{2\}$       D.  $\left\{-\frac{1}{2}, 0\right\}$       E.  $\{0\}$

63. If the average weight of four football players listed in the table below is 250 pounds, what is the weight, in pounds, of Player D?

- A. 220      B. 230      C. 240  
D. 250      E. 260

Player	Weight in lbs
A	270
B	230
C	240
D	?

64. In a right triangle, the measure of one leg is  $\sqrt{6}$ . The measure of the hypotenuse is 5. Find the measure of the other leg.

- A.  $5 - \sqrt{6}$       B.  $\sqrt{31}$       C.  $\sqrt{19}$       D.  $5 + \sqrt{6}$       E. 4

65. Simplify:  $\frac{2x^{-5}}{x^{-6}}$

- A.  $2x$       B.  $\frac{x}{32}$       C.  $32x$       D.  $\frac{2}{x}$       E.  $\frac{2}{x^{11}}$