

1. Billy typically makes 68% of his free-throw shots. If he shoots 5-free throws, what is the probability that he will get at least 4 of them?

2. Mr. Francis teaches two small Algebra 1 classes.
Below are his classes' scores on their last test:
1st Period: {78, 95, 83, 80, 90, 72, 45, 67, 94, 89}
2nd Period: {63, 87, 82, 91, 54, 74, 85, 94, 97, 81}

What is the **difference** between the means of the classes' scores?

3. The shelf life of a particular dairy product is normally distributed with a mean of 15 days and a standard deviation of 4 days. What percent of the products lasts between 3 and 19 days?

4. A power function contains the points (4, 8) and (6, 10).
What is the value of y when $x = 15$?

5.

Marta places \$100 into a savings account with a 6% interest rate compounded quarterly. How long will it take for Marta money to double?

6. A teacher counts the final exam as 25% of each student's class grade. The remaining 75% is the mean of the student's test scores from the semester. Jaleesa's test scores for the semester are 86, 90, 92, and 80. What is the **minimum** score Jaleesa must get on the final exam to have a class grade of 85.0 or higher?
- A 77
 B 79
 C 81
 D 83

A hospital administrator collected data over a seven month period concerning the number of evening room calls made by patients. Let x represent the number of calls received by the nurses.

$x =$ number of calls	36	37	38	39	40	41	42	43	44	45
Probability	0.03	0.05	0.05	0.10		0.15	0.16	0.13	0.12	0.08

7. What is the probability 40 calls were made in a single night?
8. Using the probability distribution table in #7, on a typical night, how many calls would you expect to be made?

If $2^x = 32$, then what is the value of 6^{x-3} ?

9. A. 6 B. 216 C. 36 D. 1296 E. 64

Given the function: $f(x) = \begin{cases} 2x - 5 & \text{if } x \leq 1 \\ 4 - 3x^2 & \text{if } x > 1 \end{cases}$

10. Find: $f(4) + 2f(-3) - 5f(1)$