1. (2 points) Write $\frac{405}{750}$ in reduced fraction.

2. (2 points) Write 0.25% in reduced fraction.

3. (2 points) Write $2.5 \times 10^{-6}$ in standard notation.

4. (2 points) Write 0.00000000000000625 in scientific notation.

5. (3 points) In a survey of 1400 people at a local mall, 65% of them use a certain brand of shampoo. How many of them use that brand of shampoo?

6. (3 points) In a survey of 1250 shopper at a local mall, 1000 of them had a smart phone. What percent of the shopper at that mall had a smart phone?
7. Use your calculator to evaluate

(a) (2 points) \( \frac{10(27772) - (487)^2}{10(10 - 1)} \). Give your answer in reduced fraction.

(b) (2 points) \( \frac{38.7 - 43.8}{4.2} \). Round your answer to three-decimal places.

(c) (2 points) \( \frac{72.5 - 63.8}{\sqrt{10}} \). Round your answer to three-decimal places.

(d) (2 points) \( 8! - 5! \)

(e) (2 points) \( 52C_5 \)

(f) (2 points) \( \frac{15!}{10! \cdot 5!} \)

(g) (2 points) \( 120 \cdot (0.625)^3 \cdot (0.375)^7 \). Round your answer to three-decimal places.

(h) (2 points) \( \frac{0.658 - (-0.438)}{2} \). Round your answer to three-decimal places.

(i) (2 points) \( 2.508 \cdot \sqrt{\frac{0.745 \cdot 0.255}{75}} \). Round your answer to three-decimal places.
8. Use $y = 2.5x + 65$ to
   (a) (2 points) find $y$ when $x = 8$.

   (a) __________

   (b) (2 points) find $x$ when $y = 75$.

   (b) __________

9. (2 points) Draw the line $3x - 4y = 12$.

   ![Graph of 3x - 4y = 12]

10. (2 points) Draw the line $y = -\frac{5}{4}x + 5$.

    ![Graph of y = -5/4x + 5]
11. Consider the following points below:
(0, 2), (6, 8), (6, 10), (2, 6), (4, 4), (10, 8), (8, 12), (6, 4), (14, 8), (16, 12), (18, 10), (14, 10), (20, 20)
(a) (2 points) Plot and label each point below.

(b) (4 points) Find the equation of the line that contains (0, 2) and (20, 20), then graph the line using the graphing area above. Write your final answer in $y = b + mx$ form.

12. (4 points) In a survey of 75 LA residents, 24 of them were fans of the LA Lakers and the LA Dodgers while 15 of them were not a fan of either team. The number of only LA Lakers fans was the same as the number of only LA Dodgers fans. Use this information to construct the Venn Diagram for the number of fans that belong to each region.