

1. Read Burton §2.5-2.6. Summarize the mathematical topics discussed in these sections using at most two sentences.

2. Use the table of reciprocals on page 63 to calculate 10 divided by 8.

3. Use our modern quadratic formula to solve the equation $x^2 + ax = b$.

4. Consider the system of equations $x + y = \frac{13}{2}$ and $xy = \frac{15}{2}$.
 - (a) Solve this system by eliminating one of the variables.

 - (b) Restate the problem and the solution in terms of semi-perimeter and area of a rectangle.

5. Pick two positive integers m and n such that $m > n$ and m and n are not both even.
 - (a) Show that $x = 2mn$, $y = m^2 - n^2$ and $z = m^2 + n^2$ form a Pythagorean triple.

 - (b) Is your triple primitive?