Practice Problems
for the Calculus I/Precalculus Placement Test

Part 1

1. Evaluate or simplify the following expressions:
   a. \(2(3 - 6) + 8(5) - 1\)
   b. \(1 - (4(3) - 2 + 7)\)
   c. \(\frac{3}{4} + \frac{2}{5}\)
   d. \(\frac{3}{20} - \frac{2}{15} + \frac{1}{5}\)
   e. \(\frac{3}{4} \left(1 - \frac{2}{5}\right)\)
   f. \(\frac{\frac{3}{20}}{4}\)
   g. \(\left(\frac{3}{2}\right) \left(\frac{4}{15}\right) - \frac{1}{4} \left(\frac{1}{3} - \frac{2}{5}\right)\)
   h. \(\left(\frac{1}{4}a + 3a\right)b - 2ab + c\)
   i. \(\frac{(-4)(-5)}{-2}\)
   j. \(-b(2a - 1) + (3 - b)(-a)\)
   k. \(1 + \frac{1}{x} - \frac{x + 1}{x}\)
   l. \(3 - \frac{1}{2x + 1} - \frac{5x}{2x + 1}\)

2. Express each statement using symbols or numbers.
   a. The difference of \(x\) and 2 is the sum of 7 and 4. (What is the value of \(x\)?)
   b. The quotient \(x\) divided by 2 is 3. (What is the value of \(x\)?)
   c. The sum of 3 and \(y\) is the product 4 and 5. (What is the value of \(x\)?)

3. Find the area \(A\) and perimeter \(C\) of a square with length 4 inches.

4. Find the area of a rectangle with length 9 centimeters and width 4 centimeters.

5. Find the area of a triangle with height 4 inches and base 5 inches.

6. Find the area \(A\) and circumference \(C\) of a circle of radius 3 meters.