***** **NO CALCULATORS IN THIS ROUND** *****

ANSWERS

A) _____

B) _____

C) _____

A) Compute $\quad 2^{-1} - \sqrt{\dfrac{25}{9} - \dfrac{64}{25}} + (3 \cdot 5)^{-1}$

B) Given: $\begin{cases} a : b = 2 : 3 \\ b : c = 4 : 5 \\ a + b + c = 70 \end{cases}$

Compute the value of c.

C) Let the binary operation $(*)$ be defined as follows:

$$a * b = \begin{cases} a + ab, & \text{when } b \text{ is a proper fraction} \\ b - ab, & \text{when } b \text{ is an improper faction} \end{cases}$$

Compute $\left(6 * \dfrac{2}{3} \right) * \left(\dfrac{3}{4} * \dfrac{3}{2} \right)$.