**ANSWERS**

A) _____

B) _____

C) _____

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

A) Given $\sqrt{2^4\left(5^{-2}-13^{-2}\right)}=\dfrac{A}{B}$ , a reduced fraction. Compute $A+B$.

Note: $a^{-n}$ is equivalent to $\dfrac{1}{a^n}$

B) Compute $\left(\dfrac{2\sqrt{5}-\sqrt{10}}{\sqrt{10}-\sqrt{5}}\right)^2$

C) Given: $\sqrt{\dfrac{9}{16}-\dfrac{9}{25}}=\dfrac{3}{4}-\dfrac{3}{x}$ for some integer value of $x$.

Compute $\sqrt{\dfrac{2^x \cdot 4^{3x+4}}{8^{2x+2}}}$ .