# PAIRS CHECK & VERIFY!

*Directions:* *Solve the problems on your side of the paper. Write your final answer in the box provided. When finished, you must verify that your partner's answers are correct. This assignment will be graded as* ***one grade***.

| NAME: | NAME: |
|---|---|
| 1. Find $\frac{dy}{dx}$, $x^2y + xy^2 = 6$ | 1. Find $\frac{dy}{dx}$, $x^3 + y^3 = 18xy$ |
| 2. Find $\frac{dy}{dx}$, $x^2 = \frac{x-y}{x+y}$ | 2. Find $\frac{dy}{dx}$, $y^2 = \frac{x-1}{x+1}$ |
| 3. Determine the x-value(s) of any horizontal tangents to the graph $2x^2 + xy + 4y^2 = 3$. | 3. Determine the y-value(s) of any vertical tangents to the graph $2x^2 + xy + 4y^2 = 3$. |
| 4. Find the slope of the graph: $(x-1)^2 + (y-1)^2 = 13\ at\ (3,4)$ | 4. Find the slope of the graph: $(x+1)^2 + (y+1)^2 = 25\ at\ (1,-7)$ |
| 5. Evaluate $cot^{-1}\sqrt{3}$ | 5. Evaluate $sec^{-1}(\frac{2\sqrt{3}}{3})$ |

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| 6. Evaluate the following. Draw a triangle. $\cos(tan^{-1}x^2)$ | 6. Evaluate the following. Draw a triangle. $\sec(sin^{-1}2x)$ |
| 7. Find $\frac{dy}{dx}$, $sin^{-1}\sqrt{2x}$ | 7. Find $\frac{dy}{dx}$, $tan^{-1}\sqrt{2x}$ |
| 8.Find $\frac{d}{dx}$, $[4x^2cot^{-1}(1-2x)]$ | 8. Find $\frac{d}{dx}$, $[4x^2cot^{-1}(1-2x)]$ |
| 9. Find $\frac{d^2y}{dx^2}$, $x^2+y^2=4$ | 9. Find $\frac{d^2y}{dx^2}$, $x^2+y^2=16$ |
| 10. If $f\big(g(x)\big)=x=g\big(f(x)\big) and\ f(2)=3$, $f'(2)=5, find\ g'(3)$. | 10. If $f\big(g(x)\big)=x=g\big(f(x)\big) and\ f(5)=-1$, $f'(5)=5, find\ g'(-1)$. |
| I **verify** that I have checked over my partner's answers and agree with all the answers.<br><br>Sign: _____ | I **verify** that I have checked over my partner's answers and agree with all the answers.<br><br>Sign: _____ |