## Quiz \#10 - The last one ©

Directions: Carefully read each question below and answer to the best of your ability in the space provided. Your answer to problems should be written in a clear and concise manner.
You MUST show your work to receive full credit!

1. (3 points) Use the properties of limits to calculate the following limits:
(a) $\lim _{(x, y) \rightarrow(1,-2)} 3 x y+y^{2}=$
(b) $\lim _{(x, y) \rightarrow(-1,1)}\left(4 y^{2}+2 x\right)(3 x y-5)=$
(c) $\lim _{(x, y) \rightarrow(1,1)} \frac{2 x^{2}+y}{2 x y+3}=$
2. (7 points) Compute the following limit, if it exists:

$$
\lim _{(x, y) \rightarrow(0,0)} \frac{3 x^{2} y^{2}}{x^{3}+y^{6}}
$$

Name:
Section (circle one): 001002

| Question: | 1 | 2 | Total |
| :--- | :---: | :---: | :---: |
| Points: | 3 | 7 | 10 |
| Score: |  |  |  |

