

Math 70 Quiz #8
March 8, 2011

Name: _____

Show all work on a separate paper. Staple this sheet to your answers. Simplify your answers as much as possible.

1. (4 pts.) For the following problem, list unknowns, define a variable, use equations to solve, and answer in a complete sentence.

Three friends go out to dinner and split the bill, but not evenly. Ignoring tax and tip, Amy spent twice as much as Betty. Charlie spent 10 more dollars than Betty. The total bill was \$74 without tax and tip. How much does each person owe?

2. Simplify the following. Express your answers with positive exponents. Simplify any numbers that are squared.

(a) (2 pts.) $8xy^2(\frac{1}{2}y^{10})(-x^3)$

(c) (1 pt.) 8^{-2}

(b) (1 pt.) $(x^{10})^3$

(d) (2 pts.) $\frac{15x^{15}}{5x^7}$

(c) (1 pt.) $(-8y^3)^2$

(e) (2 pts.) $\frac{4a^9b}{24a^4b^3}$

3. (1 pt.) Write 8.75×10^{-6} in decimal form.

4. (1 pt.) Write 23,400 in scientific notation.

Math 70 Quiz #8
March 8, 2011

Name: _____

Show all work on a separate paper. Staple this sheet to your answers. Simplify your answers as much as possible.

1. (4 pts.) For the following problem, list unknowns, define a variable, use equations to solve, and answer in a complete sentence.

Three friends go out to dinner and split the bill, but not evenly. Ignoring tax and tip, Amy spent twice as much as Betty. Charlie spent 10 more dollars than Betty. The total bill was \$74 without tax and tip. How much does each person owe?

2. Simplify the following. Express your answers with positive exponents. Simplify any numbers that are squared.

(a) (2 pts.) $8xy^2(\frac{1}{2}y^{10})(-x^3)$

(c) (1 pt.) 8^{-2}

(b) (1 pt.) $(x^{10})^3$

(d) (2 pts.) $\frac{15x^{15}}{5x^7}$

(c) (1 pt.) $(-8y^3)^2$

(e) (2 pts.) $\frac{4a^9b}{24a^4b^3}$

3. (1 pt.) Write 8.75×10^{-6} in decimal form.

4. (1 pt.) Write 23,400 in scientific notation.