

Beginning Algebra

Name: _____

Study Guide 18

Class: _____

Due Date: _____

Score: _____

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

1. (3 points) Multiply: $\frac{2y + 14}{4y + 20} \cdot \frac{2y^2 - 50}{y^2 - 49}$

1. _____

2. (3 points) Divide: $\frac{k^2 + 2k}{k^2 - 36} \div \frac{k + 2}{k - 6}$

2. _____

3. (3 points) Multiply: $\frac{m^2 - 3m + 2}{m^2 - 3m - 4} \cdot \frac{m^2 - 10m - 24}{m^2 - 5m + 6}$

3. _____

4. (3 points) Divide: $\frac{m^2 + m - 6}{m^2 + 4m - 12} \div \frac{m + 3}{m - 1}$

4. _____

5. (4 points) Simplify: $\frac{x^3 - 9x}{2x^2 - 5x - 3} \div \frac{2x^2 + 12x + 18}{4x^2 + 4x + 1} \cdot \frac{2x^2 + 7x - 4}{4x^4 - x^2}$

5. _____

6. (3 points) Subtract: $\frac{x^2}{x^2 - 10x + 24} - \frac{4x}{x^2 - 10x + 24}$

6. _____

7. (3 points) Add: $\frac{x^2 + 2x}{x^2 - 2x - 15} + \frac{2x + 3}{x^2 - 2x - 15}$

7. _____

8. (3 points) Find the LCM: $3x + 15$, $x^2 - 25$

8. _____

9. (3 points) Find the LCM: $x^2 - 4x - 21$, $x^2 + 8x + 15$

9. _____

10. (4 points) Add: $\frac{3}{x^2 - 25} + \frac{1}{x^2 - 8x + 15}$

10. _____

11. (4 points) Subtract: $\frac{m}{4m^2 - 49} - \frac{m}{2m^2 - 5m - 7}$

11. _____

12. (4 points) Add: $\frac{x}{x^2 + 10x + 21} + \frac{2}{x^2 - 49}$

12. _____

13. (5 points) Subtract: $\frac{m - 3}{m^2 - 6m + 8} - \frac{m + 3}{m^2 + 3m - 10}$

13. _____

14. (5 points) Simplify: $\frac{x^4 - 2x^3}{x^4 - 8x} \div \frac{x^2 - 9}{x^2 + 2x + 4} - \frac{2x^2 + x}{2x^2 + 5x - 3} \div \frac{2x^2 - 5x - 3}{2x^2 - x}$

14. _____