

Beginning Algebra

Name: _____

Study Guide 12

Class: _____

Due Date: _____

Score: _____

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

1. (2 points) Distribute: $5(4x + 3)$

1. _____

2. (2 points) Distribute: $-4(2x^2 - 4x - 1)$

2. _____

3. (2 points) Translate: 5 times the sum of x^2 and 1

3. _____

4. (2 points) Evaluate $-5x^3 - 20x$ if $x = -2$.

4. _____

5. (2 points) Evaluate $\sqrt{x^2 + y^2}$ if $x = -4$ and if $y = -3$.

5. _____

6. (3 points) Evaluate $\frac{x^2}{\sqrt{y} + x}$ if $x = -4$ and if $y = 9$.

6. _____

7. (2 points) Translate: Twice the square of x reduced by 10 is equal to 20

7. _____

8. (2 points) Simplify: $3x^2 - 5x + 18 - x^2 + 4x - 18$

8. _____

9. (3 points) Distribute and simplify: $4(x^2 - 3x + 1) - 2(2x^2 - 6x + 2)$

9. _____

10. (2 points) Simplify: $(x^2)^8 \cdot x^4$

10. _____

11. (2 points) Simplify: $\frac{36x^{13}}{(3x^6)^2}$

11. _____

12. (2 points) Simplify: $(-2x^3y^5)^3$

12. _____

13. (2 points) Simplify: $\left(\frac{3x^4}{2y^2}\right)^4$

13. _____

14. (2 points) Simplify: $(x^4)^{-3} \cdot x^2$

14. _____

15. (2 points) Simplify: $\frac{25x^{13}}{(x^6)^{-2}}$

15. _____

16. (2 points) What is the degree and the coefficient of $-8x^4y^6$?

16. _____

17. (2 points) What is the degree and the leading coefficient of $-8x^3 + 10x^5 - 5x^8 + 100 - 4x$?

17. _____

18. (2 points) Simplify: $\frac{25x^7y^{-3}}{10x^{-6}y^3}$

18. _____

19. (3 points) Simplify: $\left(\frac{-3x^{-4}}{5y^{-2}}\right)^{-2}$

19. _____

20. (3 points) Simplify: $\left(x^{2/3}\right)^6 \cdot x^{-4}$

20. _____

21. (3 points) Simplify: $x^{3/4} \cdot x^{2/5}$

21. _____

22. (3 points) Simplify: $\frac{x^{4/5}}{x^{2/3}}$

22. _____