

Review for Exam 3

MA 098 ZNB

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1) Add or subtract as indicated. Combine all like terms.

$$(c^2 - 3c) + (-c^2 - 1) - (c - c^2 + 1).$$

2) Use the power rule to simplify the expression: $(d^2)^4$.

3) Multiply: $(w - 7)(w + 7)$.

4) Use the product rule to simplify: x^2x^5 .

5) Simplify $5x^{-1}$.

6) Multiply: $-3x^{-1}(x^3 - \frac{1}{3}x^2 + x)$.

7) Simplify $\frac{r^{-1}}{r^{-1}r^{-2}}$.

8) Evaluate -2^4 .

9) Simplify by combining like terms: $2e^2 - (-e^2)$.

10) Find the area of a rectangle whose length is $3x - 1$ and whose height is $3x + 1$.

11) Multiply $(x + 2)(2x - 4)$.

12) Let $x = -1$ and $y = 2$. Evaluate $3x^2y^3$.

13) Evaluate $(-2)^5$ and $(-2)^6$.

14) Multiply $3x^2(2x^{-3})(-2x^5)$.

15) Simplify $(\sqrt{2x^\pi}y^{-\pi}(\gamma^2))^0$.

16) Simplify $\frac{t}{t^{-4}}$.

17) Simplify $\frac{3fg^2}{9f^{-3}g^3}$.

18) Use the power rule to simplify: $(3xy^{-2})^2$.

19) Add or subtract as indicated: $(d^3 - 3d) - (-4d^3 + 2d)$.

20) Simplify 3^{-4} .

21) Simplify $2(x^{-2}y^3)^{-5}$.

22) Multiply, i.e. eliminate the outer exponent: $(-2x^2 - 3)^2$.

23) Simplify $\frac{80x^4y^3}{(2x)^4(5y^2)}$.

24) Simplify $\frac{(x^2)^{-3}}{(x^2)^{-4}}$ and also $\frac{(x^3)^2}{(x^2)^4}$.

25) Multiply $(x^2 + 1)(-2x^2 + x - 1)$.