

Student: _____
Date: _____
Time: _____

Instructor: Fred Khoury
Course: Math 2312-1000 Precalculus (Fall - 2015)
Book: Lial: College Algebra and Trigonometry, 4e

Assignment: Quiz Sec 4.4

1. Write the binomial expansion of the expression.

$$(3x - 2)^5$$

- ☐ A. $(9x^2 - 12x + 4)^5$
☐ B. $243x^5 - 810x^4 + 1080x^3 - 720x^2 + 240x - 32$
☐ C. $243x^5 - 162x^4 + 108x^3 - 72x^2 + 48x - 32$
☐ D. $243x^5 + 240x^4 - 720x^3 - 720x^2 + 240x - 32$

2. Write the binomial expansion of the expression.

$$(2x^2 + 4)^3$$

- ☐ A. $8x^6 + 48x^4 + 96x^2 + 64$
☐ B. $8x^3 + 48x^2 + 96x + 64$
☐ C. $(4x^4 + 16x^2 + 16)^3$
☐ D. $16x^8 + 8x^6 + 48x^4 + 96x^2 + 64$

3. Write the binomial expansion of the expression.

$$(a - b)^6$$

- ☐ A. $-a^6 + 6a^5b - 15a^4b^2 + 20a^3b^3 - 15a^2b^4 + 6ab^5 - b^6$
☐ B. $a^6 - 6a^5b + 15a^4b^2 - 20a^3b^3 + 15a^2b^4 - 6ab^5 + b^6$
☐ C. $a^6 + 6a^5b + 15a^4b^2 + 20a^3b^3 + 15a^2b^4 + 6ab^5 + b^6$
☐ D. $a^6 - 6a^5b - 15a^4b^2 - 20a^3b^3 - 15a^2b^4 - 6ab^5 - b^6$

4. Write the binomial expansion of the expression.

$$(-2x^2 - y)^5$$

- ☐ A. $-32x^{10} + 80x^8y - 80x^6y^2 + 40x^4y^3 - 10x^2y^4 + y^5$
☐ B. $-32x^{10} - 80x^8y + 80x^6y^2 - 40x^4y^3 + 10x^2y^4 - y^5$
☐ C. $-32x^{10} - 80x^8y - 80x^6y^2 - 40x^4y^3 - 10x^2y^4 - y^5$
☐ D. $32x^{10} + 80x^8y + 80x^6y^2 + 40x^4y^3 + 10x^2y^4 + y^5$

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5. Write the binomial expansion of the expression.

$$\left(-2 + \frac{y}{4}\right)^5$$

- ☐ A. $-32 + 20y - 5y^2 + \frac{5}{8}y^3 - \frac{5}{128}y^4 + \frac{1}{1024}y^5$
- ☐ B. $-32 - 2500y + -500y^2 - \frac{25}{4}y^3 + -\frac{5}{128}y^4 - \frac{1}{1024}y^5$
- ☐ C. $-32 - 20y - -5y^2 - \frac{5}{8}y^3 - -\frac{5}{128}y^4 - \frac{1}{1024}y^5$
- ☐ D. $32 + 20y + -5y^2 + \frac{5}{8}y^3 + -\frac{5}{128}y^4 + \frac{1}{1024}y^5$

6. Write the binomial expansion of the expression.

$$\left(\frac{1}{x} - \sqrt{11} y\right)^3$$

- ☐ A. $\frac{1}{x^3} - \frac{3\sqrt{11}y}{x^2} + \frac{99y^2}{x} - 11\sqrt{11}y^3$
- ☐ B. $\frac{1}{x^3} - \frac{3\sqrt{11}y}{x^2} - \frac{33y^2}{x} - 11\sqrt{11}y^3$
- ☐ C. $\frac{1}{x^3} + \frac{3\sqrt{11}y}{x^2} + \frac{33y^2}{x} + 11\sqrt{11}y^3$
- ☐ D. $\frac{1}{x^3} - \frac{3\sqrt{11}y}{x^2} + \frac{33y^2}{x} - 11\sqrt{11}y^3$