

41.5
 90.2/6 46
 A-

All test answers are to be in simplest form. A calculator may be used.
 Cell phones, iPads, and other electronic devices with scanning or photo ability may NOT be used.
 No notes, no books, no homework may be used while taking this test.
 Use blank spaces on the test to show your work. Attach all scratch paper to the test.

Perform the indicated operation(s) and simplify. Write all answers using positive exponents.

$\frac{3}{3}$

1) $(k^4)^{-8} (km)^3$
 $k^{-32} k^3 m^3$
 $k^{-29} m^3$
 $\frac{m^3}{k^{29}}$

$\frac{12}{14}$

do not distribute exponent

$\frac{1}{2}$

2) $\frac{(x+d)^{-3}}{(x+d)^{-4}}$
 $\frac{x^{-3} + d^{-3}}{x^{-4} + d^{-4}}$
 $x + d$

$\frac{(x+d)^4}{(x+d)^3} = (x+d)^1$
 as a group

$\frac{3}{3}$

3) $\frac{7^4 x^7}{7^7 x^5}$
 $\frac{2401 x^7}{823,543 x^5}$

$7^{-3} x^{-2}$

$\frac{1}{7^3 x^2} = \frac{x^2}{343}$

7 > 49
 7 > 49
 7 > 49
 7 > 49
 7 > 49
 7

$\begin{array}{r} 6 \\ 249 \\ \times 7 \\ \hline 1743 \\ \times 7 \\ \hline 17401 \\ \times 49 \\ \hline 21609 \\ 96040 \\ \hline 117649 \end{array}$

$\begin{array}{r} 2401 x^7 \\ \hline 823,543 x^5 \\ \times 7 \\ \hline 5,761,801 x^5 \end{array}$

Divide

4) $\frac{6x^9 - 6x^5}{-3x^9}$

$\frac{1}{2}$

$\frac{6x^9}{-3x^9} \quad \frac{-6x^5}{-3x^9}$

$-2 + 2x^{-4}$

$-2 + \frac{2}{x^4}$

-1
positive exponents only

Divide using long division.

5) $(x^2 + 12x + 20) \div (x + 3)$

$\frac{4}{4}$

$$\begin{array}{r} x+9 \\ x+3 \overline{) x^2+12x+20} \\ \underline{x^2 \quad 3x} \\ 9x+20 \\ \underline{9x+27} \\ -7 \end{array}$$

$x+9 - \frac{7}{x+3}$

29.5
32

Show work for questions from MyMathLab chapter tests. Be sure to put the question number by your work. Partial credit may be given even though your final answer is wrong. Test proctor has the password to access MyMathLab Chapter tests.

Question 2

$$3(-xy^6)(x^7y)$$

$$(-3x^3y^4)(x^7y)$$

$$-3x^8 \cdot 3y^7$$

3(-1)(1)
coefficients

-3

$$-3x^8y^7$$

2.5
3

Question 3

$$(-7xy^3)(4x^3y)$$

$$-28x^4y^4$$

Question 4

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

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

$$x^{-4}y^{-10}$$

lost sign

$$\frac{1}{x^4y^{10}}$$

2/3

Question 5

$$-ba(b^2 - 3a^2)$$

$$-b^3a + 3ba^3$$

Question 6

$$(3a-4)(4a-6)$$

$$12a^2 - 16a - 18a + 24$$

$$12a^2 - 34a + 24$$

Question 7

$$(8b+7)^2$$

$$64b^2 + 112b + 49$$

8 \cdot 7 = 56
double = 112

-1/2

112b

2.5
3

Question 8

$$(2m+3n)(2m-3n)$$

$$4m^2 + 6mn - 6mn - 9n^2$$

$$4m^2 - 9n^2$$

Question 9

$$a^2 - 8a + 8$$

$$a + 6$$

$$6a^2 - 48a + 48$$

$$a^3 - 8a^2 + 8a$$

$$a^3 - 2a^2 - 40a + 48$$

Show work for questions from MyMathLab chapter tests. Be sure to put the question number by your work. Partial credit may be given even though your final answer is wrong. Test proctor has the password to access MyMathLab Chapter tests.

Question 10

$$\frac{C^3}{C^{-9}}$$

$$C^{12}$$

Question 11

$$\frac{12x^5 - 4x + 12}{4x}$$

$$\frac{12x^5}{4x} - \frac{4x}{4x} + \frac{12}{4x}$$

$$\frac{3}{x}$$

? $4x(3x^4 + 3)$
 $3x^4 - 1 + \frac{3}{x}$

Question 12

$$\begin{array}{r} x^2 \ 5x \ -2 \\ X+1 \overline{) X^3 + 6x^2 + 3x - 2} \\ \underline{X^3 \quad \quad X^2} \\ 5x^2 + 3x - 2 \\ \underline{-5x^2 - 5x} \\ -2x - 2 \\ \underline{-2x - 2} \\ 0 \end{array}$$

Question _____

Question _____

Question _____

Question _____

Question _____