**Determine whether the following statement is true or false**.

x10 ÷ x2 = x5for all nonzero real numbers x

Select one:

True

False

**Find the quotient: (25x9 + 15x6 - 10x3) ÷ 5x3**

Select one:

a. 5x3 + 15x2 - 2x3

b. 5x6 + 15x2 - 10

c. 5x6 + 3x3 - 2

d. 5x3 + 3x2 - 2x

**Simplify:**

3-1 - 6-1

Select one:

a. 2-1

b. -3-1

c. 6-1

d. 3-1

**Simplify**

1 / (-3)-2

Select one:

a. -1/9

b. -9

c. 1/9

d. 9

**Simplify:**

(4x3)2 / x7

Select one:

a. 16x2

b. 16/x2

c. 4/x2

d. 16/x

**Write the following number in scientific notation:**

**3141516**

Select one:

a. 0.3141516 x 107

b. 31.51516 x 105

c. 3.141516 x 106

d. 3.141516 x 105

**Solve the quadratic equation:**

x2 + 7x = 18

Select one:

a. x = 3 and x = -6

b. x = -2 and x = 9

c. x = 2 and x = -9

d. x = -3 and x = 6

**Solve the quadratic equation:**

x(x - 3) = 18

Select one:

a. x = 1 and x = -15

b. x = -18 and x = 4

c. x = 3 and x = -6

d. x = -3 and x = 6

**Determine whether the following relation is a function.**

**{(5,6), (5,7), (6,6) (6,7)}**

Select one:

a. No, it is not a function.

b. Can't determine

c. Yes, it is a function.

**Find f( a+ 3) when f(x) = x2 + 3.**

Select one:

a. a2 + 2a + 6

b. a2 + 6a + 12

c. a2 + 12

d. a2 + 6

**Find all the numbers for which the rational expression is undefined:**



Select one:

A. x = 5

B. x = -5

C. x = 4

D. x = -4

**Find all the numbers for which the rational expression is undefined:**



Select one:

A. x = -7

B. x = -1

C. x = 0

D. none

**Simplify:**



Select one:

A. x + 5

B. x - 5

C. 1/(x - 5)

D. 1/(x + 5)

**Simplify:**



Select one:

A. x - 2

B. x + 2

C. x2 - 2

D. Can't be simplified

**Multiply as indicated:**



Select one:

A. (4x + 20)/9

B. 4/9

C. -72/90

D. (x - 3)/(x + 5)

**Multiply as indicated:**



Select one:

A. x(x + 3)

B. 2/x(x+3)

C. -2/x(x+3)

D. can't be simplifed

**Divide as indicated:**



Select one:

A. 3/5

B. (3x - 3)/(x - 5)

C. 245/3(x - 5)2

D. can't be done

**Divided as indicated:**



Select one:

A. x(x + 6)/(x - 2)(x - 1)

B. x(x + 5)/(x - 2)(x - 1)

C. x(x + 3)/(x + 2)(x - 1)

D. x(x + 3)/(x - 2)(x - 1)

**Add or subtact as indicated. Simplify the result if possible.**



Select one:

A. (10x + 7)/(x - 4)

B. x(9x + 7)/(x - 4)

C. (10x + 7)/(x - 4)2

D. (9x + 8)/(x - 4)2

**Add or subtact as indicated. SImplify the result if possible.**



Select one:

A. -1

B. 1

C. x/(x - 1)

D. x - 1

**Add or subtact as indicated. Simplify the result if possible.**



Select one:

A. 0

B. 2

C. 2/x

D. 2(x - 8)/(x2 - 16)

**Add or subtact as indicated. Simplify the result if possible.**



Select one:

A. (x + y)/(x - y)

B. (x - y)/(x + y)

C. 3

D. 3(x + y)

**Find the LCD of the two rational expressions whose denominators are:**

15x2 and 24x5.

Select one:

A. 15x2

B. 24x5

C. 360x5

D. 120x5

**Add or subtract as indicated. Simplify the result if possible:**



Select one:

A. 7/x

B. (6x + 1)/x

C. (6 + x)/x

D. (6x + 1)/6x

**Add or subtract as indicated. Simplify the result if possible:**



Select one:

A. (x + 12)/(x + 3)(x - 3)

B. (9x + 12)/(x + 3)(x - 3)

C. (5x - 4)/(x + 3)(x - 3)

D. (9x - 12)/(x + 3)(x - 3)