

Elementary Algebra Final Review Practice Quiz 01 - Be Sure to Click View Results at the Very End to See How you Did!!Name: [David Hays \(Preview\)](#)

Start time: December 4, 2008 5:05am

Time allowed: 90 minutes

Number of questions: 25

[Finish](#)[Help](#)**Question 1** (4 points)**Solve general inequalities**

Solve.

$$-3x - 5 < -8$$

- a. $x < 1$
- b. $x > \frac{13}{3}$
- c. $x \leq \frac{13}{3}$
- d. $x > 1$

[Save answer](#)**Question 2** (4 points)**Factor the difference of two squares and perfect-square trin**

Factor.

$$16z^2 - 40z + 25$$

- a. $(4z - 5)^2$
- b. $(4z - 5)(4z + 5)$
- c. $(4z + 5)^2$
- d. $(4z - 25)(5z + 1)$

[Save answer](#)**Question 3** (4 points)**Factor trinomials of the form $ax^2 + bx + c$ using trial fact**

Factor.

$$12x^2 + 23x + 5$$

- a. $(4x - 1)(3x + 5)$
- b. $(4x + 1)(3x + 5)$
- c. $(4x - 1)(3x - 5)$
- d. $(4x + 1)(3x - 5)$

[Save answer](#)**Question 4** (4 points)**Find the equation of a line using the equation $y = mx + b$**

Which shows the equation of a line, in slope-intercept form, that passes through the point

$(-2, -1)$ with slope -4 ?

- a. $y = 4x - 9$
- b. $y = -4x - 1$
- c. $y = 4x - 1$
- d. $y = -4x - 9$

Save answer

Question 5 (4 points)

Scientific notation

Express the number in scientific notation.
0.0000361

- a. 3.61×10^{-5}
- b. 361×10^{-5}
- c. 3.61×10^6
- d. 3.61×10^{-3}

Save answer

Question 6 (4 points)

Solve equations of the form $ax = b$

Solve.

$$12x = 48$$

- a. $\frac{1}{4}$
- b. 576
- c. $\frac{1}{576}$
- d. 4

Save answer

Question 7 (4 points)

Solve equations by factoring

Solve by factoring.

$$-6x^2 - 7x + 3 = 0$$

- a. $\frac{3}{2}, -\frac{1}{3}$
- b. $\frac{3}{2}, \frac{1}{3}$
- c. $-\frac{3}{2}, -\frac{1}{3}$
- d. $-\frac{3}{2}, \frac{1}{3}$

Save answer

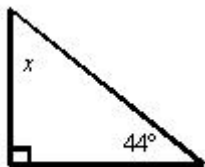
Question 8 (4 points)**Markup problems**

A struggling furniture store owner determines that in order to make a profit, she must set a 27% markup rate for every item in her store. Find the markup on a sofa that cost the owner \$175 to stock.

- a. \$112.00
- b. \$23.63
- c. \$47.25
- d. \$140.00

Question 9 (4 points)**Problems involving the angles of a triangle**

Which is the measure of x ?



- a. 92
- b. 46
- c. 134
- d. 136

Question 10 (4 points)**Factor trinomials of the form $x^2 + bx + c$**

Factor.

$$x^2 - 2x - 35$$

- a. $(x - 5)(x + 7)$
- b. $(x + 5)(x + 7)$
- c. $(x + 5)(x - 7)$
- d. $(x - 5)(x - 7)$

Question 11 (4 points)**Multiply monomials**

Simplify.

$$(-3x^2y)(5x^4y)$$

- a. $15x^6y^2$
- b. $-15x^8y$
- c. $15x^2y$
- d. $-15x^6y^2$

Save answer

Question 12 (4 points)

Solve a literal equation for one of the variables

Solve the formula for the given variable.

$$y = mx + b \text{ for } x$$

- a. $x = \frac{y-b}{m}$
- b. $x = \frac{y+b}{m}$
- c. $x = \frac{y}{m} - b$
- d. $x = \frac{y}{m+b}$

Save answer

Question 13 (4 points)

Solve general inequalities

Solve.

$$x - 4 + (x + 6) > 0$$

- a. $x < 1$
- b. $x > 1$
- c. $x > -1$
- d. $x < -1$

Save answer

Question 14 (4 points)

Simplify general variable expressions

Simplify.

$$-7x + 2[x + (9 + 4x)]$$

- a. $-9x - 13$
- b. $3x + 18$
- c. $3x - 13$
- d. $18x - 9$

Save answer

Question 15 (4 points)

Multiply integers

Multiply.

$$(-1)3$$

- a. 3
- b. -3
- c. -4

d. 2

Save answer

Question 16 (4 points)

Integer exponents

Simplify.

$$\frac{j^6 k^3}{l^9 j^8}$$

a. $\frac{l^9}{k^3 j^2}$

b. $\frac{k^9}{l^2 j^3}$

c. $\frac{k^3 j^2}{l^9}$

d. $\frac{k^3}{l^9 j^2}$

Save answer

Question 17 (4 points)

Divide polynomials

Simplify.

$$(3x^3 + 9x^2 + 9x + 9) \div (x + 2)$$

a. $3x^2 + 9x + 3$

b. $3x^2 + 3x + 3$

c. $3x^2 + 9x + 3, r 4$

d. $3x^2 + 3x + 3, r 3$

Save answer

Question 18 (4 points)

Opposites and absolute value

Evaluate.

$$-|-7|$$

a. ± 7

b. 7

c. -7

d. $\frac{1}{7}$

Save answer

Question 19 (4 points)

Coin and stamp problems

A stamp collector has 7¢ stamps and 20¢ stamps. The number of 7¢ stamps is nine less than twice the number of 20¢ stamps. The total value of the stamps is \$1.75. Find the number of both types of stamps in

the collection.

- a. 7¢ stamps: 5; 20¢ stamps: 8
- b. 7¢ stamps: 7; 20¢ stamps: 5
- c. 7¢ stamps: 23; 20¢ stamps: 7
- d. 7¢ stamps: 5; 20¢ stamps: 7

Save answer

Question 20 (4 points)

Factor trinomials of the form $ax^2 + bx + c$ using trial fact

Factor.

$$4x^2 - 4x - 15$$

- a. $(2x + 5)(2x - 3)$
- b. $(2x - 5)(2x - 3)$
- c. $(2x + 5)(2x + 3)$
- d. $(2x - 5)(2x + 3)$

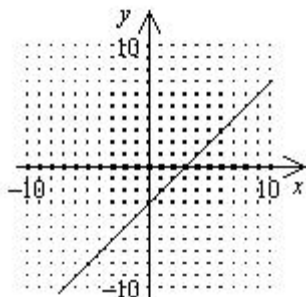
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Question 21 (4 points)

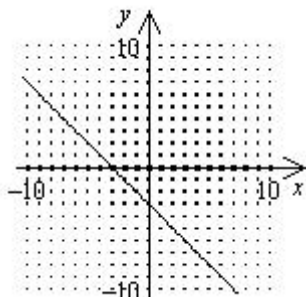
Graph equations of the form $y = mx + b$

Which is the graph of $y = x + 3$?

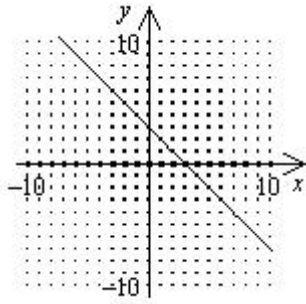
a.



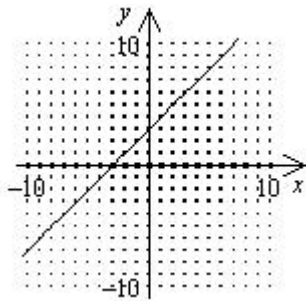
b.



c.



d.



Save answer

Question 22 (4 points)

Multiply rational expressions

Simplify.

$$\frac{x^2}{x-9} \cdot \frac{x^2-12x+27}{x^2-3x}$$

a. $\frac{-12x+27}{27x}$

b. $\frac{x^2-3x}{x-3}$

c. $\frac{x^2+3x}{x-3}$

d. x

Save answer

Question 23 (4 points)

Subtract integers

Subtract.

$$-7 - (-1)$$

a. -8

b. 6

c. 8

d. -6

Save answer

Question 24 (4 points)

Investment problems

An investment club wants to invest \$27,000 in two simple interest accounts. One account earns 4.7% annual

simple interest and the other account earns 8.2% annual simple interest. How much should be invested in each account so that both accounts earn the same annual interest?

- a. \$9837.21 at 4.7%; \$17,162.79 at 8.2%
- b. \$17,162.79 at 4.7%; \$9837.21 at 8.2%
- c. \$17,443.79 at 4.7%; \$9556.21 at 8.2%
- d. \$9556.21 at 4.7%; \$17,443.79 at 8.2%

Save answer

Question 25 (4 points)

Subtract polynomials

Simplify.

$$(-3x^5 - 6x) - (-4x - 2 + 8x^5)$$

- a. $x^5 + 2x - 2$
- b. $-11x^5 - 2x + 2$
- c. $5x^5 + 2x + 2$
- d. $2x^5 - 10x - 2$

Save answer

Finish

Help