Intermediate 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 5:08am
Time allowed: 90 minutes
Number of questions: 25

Finish Help

Question 1 (4 points)

Find the equation of a line given two points
Determine the equation of the line, in slope-intercept form, that contains the points.
$(-5, 4)$ and $(3, 4)$

a. $x = 4$
b. $y = x - 5$
c. $y = x + 4$
d. $y = 4$

Save answer

Question 2 (4 points)

Factor the difference of two perfect squares and factor perf
Factor.
$49x^2 - 25y^2$

Equation: Create equation Equation editor

Save answer

Question 3 (4 points)

Solve inequalities in one variable
Solve.
$-\frac{x}{4} < 5$

a. $x < -20$
b. $x > 1$
c. $x > -20$
d. none of these

Save answer

Question 4 (4 points)

Multiply and divide rational expressions

Simplify.

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

a. $\frac{1}{-x}$

b. $\frac{x+2}{x-2}$

c. $\frac{1}{x-2}$

d. $\frac{1}{2-x}$

Save answer

Question 5 (4 points)

Find equations of parallel and perpendicular lines

Find the equation of the line, in standard form, that is perpendicular to $9x+8y=4$ and contains $(-3, -4)$.

a. $-3x-4y=60$

b. $-8x+9y=-12$

c. $-9x-8y=60$

d. $8x+9y=-12$

Save answer

Question 6 (4 points)

Solve quadratic equations by factoring

Solve by factoring.

$x^2+4x-5=0$

a. $-5, -1$

b. $-5, 1$

c. $-1, 5$

d. $5, 1$

Save answer

Question 7 (4 points)

Evaluate a function

Find $f(-2)$ given that $f(x)=-2x^2+3x-20$.

a. -16

b. -22

c. -14

d. -34

Save answer

Question 8 (4 points)

Factor the sum or the difference of two cubes

Factor.

$n^3 + 125$

a. $(n+5)(n^2+25)$

b. $(n-5)(n^2+5n+25)$

c. $(n+5)^3$

d. $(n+5)(n^2-5n+25)$

Save answer

Question 9 (4 points)

Add and subtract radical expressions

Simplify.

$6\sqrt{36x} - 5\sqrt{36x}$

a. $6\sqrt{x}$

b. x

c. $6x$

d. $\sqrt{x}$

Save answer

Question 10 (4 points)

Multiply radical expressions

Simplify.

$\left(3\sqrt{x} + \sqrt{y}\right)\left(\sqrt{x} + 8\sqrt{y}\right)$

a. $3x + 25\sqrt{xy} + 8y$

b. $3x + 8y$

c. $3\sqrt{x} + 13\sqrt{xy} + 8\sqrt{y}$

d. $3x - 23\sqrt{xy} + 8y$

Save answer

Question 11 (4 points)

Find the length and midpoint of a line segment

Find the midpoint of the segment connecting $(-7, -9)$ and $(2, 8)$.

a.

$\left(-\frac{9}{2}, -\frac{17}{2}\right)$

b. $(-5, -1)$

c. $\left(-\frac{5}{2}, -\frac{1}{2}\right)$

d. $(5, 1)$

Save answer

Question 12 (4 points)

Solve fractional equations

Solve.

$-\frac{12}{x} - \frac{4}{x-5} = -11$

a. $1 \text{ or } \frac{60}{11}$

b. 1

c. $2 \text{ or } \frac{71}{11}$

d. 2

Save answer

Question 13 (4 points)

Solve inequalities in one variable

Solve.

$x + 18 > 7$

a. $x > 25$

b. $x > -11$

c. $x < 25$

d. $x < -11$

Save answer

Question 14 (4 points)

Add and subtract rational expressions

Simplify.

$\frac{8}{x^2+6x+5} - \frac{9}{x+1}$

a. $\frac{-9x+13}{x^2+6x+5}$

b. $\frac{-9x+53}{x^2+6x+5}$

c. $\dfrac{-9x-37}{x^2+6x+5}$

d. $-\dfrac{1}{x^2+5x+4}$

Save answer

Question 15 (4 points)

Solve equations containing one or more radical expressions

Solve.

$\sqrt{g+16}+4=g$

a. $-9,\ 9$

b. -9

c. 9

d. $0,\ 9$

Save answer

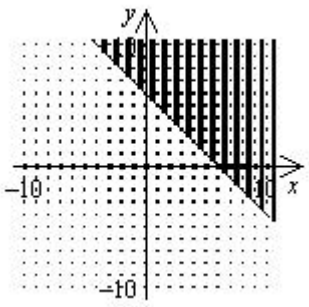
Question 16 (4 points)

Graph the solution set of an inequality in two variables

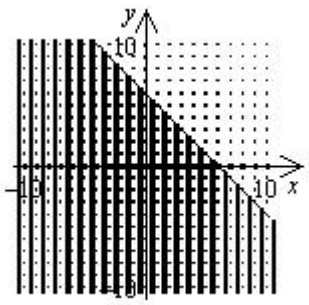
Graph.

$-y \geq x-6$

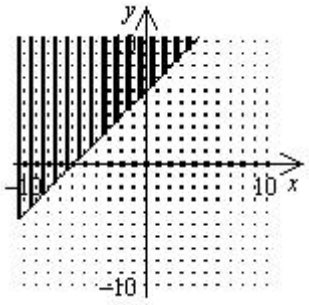
a.



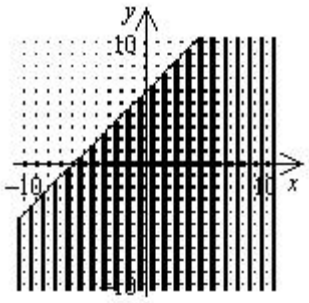
b.



c.



d.



Save answer

Question 17 (4 points)

Factor the difference of two perfect squares and factor perf

Factor.

$25q^2 - 60q + 36$

a. $(5q + 6)^2$

b. $(5q - 6)(5q + 6)$

c. $(5q - 6)^2$

d. $(5q - 36)(6q + 1)$

Save answer

Question 18 (4 points)

Solve compound inequalities

Solve.

$-2 \le -2x + 8 \le 4$

a. $5 \le x \le 2$

b. $2 \le x \le 5$

c. $6 \le x \le 12$

d. $12 \le x \le 6$

Save answer

Question 19 (4 points)

Divide radical expressions

Simplify.

$$\frac{\sqrt{8x^7y^3}}{\sqrt{2x^5y^4}}$$

a. $\frac{4x^4\sqrt{y}}{y}$

b. $\frac{\sqrt{4x^2}}{\sqrt{y}}$

c. $\frac{\sqrt{16x^{12}y^7}}{\sqrt{2x^5y^4}}$

d. $\frac{2x\sqrt{y}}{y}$

Save answer

Question 20 (4 points)

Solve quadratic equations by using the quadratic formula

Solve using the quadratic formula.

$3x^2 - 4x - 3 = 0$

a. $\frac{2+\sqrt{13}}{3}, \frac{2-\sqrt{13}}{3}$

b. $\frac{-2+\sqrt{13}}{3}, \frac{-2-\sqrt{13}}{3}$

c. $\frac{2+2\sqrt{13}}{3}, \frac{2-2\sqrt{13}}{3}$

d. $\frac{-2+2\sqrt{13}}{3}, \frac{-2-2\sqrt{13}}{3}$

Save answer

Question 21 (4 points)

Add and subtract rational expressions

Simplify.

$$\frac{1}{4(x-4)} + \frac{11}{4(x-4)}$$

a. $3(x-4)$

b. $\frac{1}{4(x-4)}$

c. $\frac{3}{x-4}$

d.

- $\frac{12}{x-4}$

Save answer

Question 22 (4 points)

Multiply and divide rational expressions

Simplify.

$$\frac{x+4}{3x+4y} \cdot \frac{9x^2-16y^2}{2x^2+3x-20}$$

a. $\frac{3x-4y}{2x-5}$

b. $-\frac{3x-4y}{3}$

c. $\frac{3x+4y}{-3x+3}$

d. $\frac{3x^2-4y^2}{2x-5}$

Save answer

Question 23 (4 points)

Solve equations using the Addition and Multiplication Proper

Solve.

$$-\frac{9}{4}x = -4$$

a. 9

b. $1\frac{7}{9}$

c. $-\frac{8}{9}$

d. $-1\frac{1}{4}$

Save answer

Question 24 (4 points)

Add and subtract rational expressions

Simplify.

$$\frac{2}{x+9} + \frac{5}{x-9}$$

a. $\frac{7}{x^2-81}$

b.

$\frac{7x+27}{x^2-81}$

c. $\frac{7}{x+9}$

d. $\frac{7x+27}{7}$

Save answer

Question 25 (4 points)

Simplify complex numbers

Simplify.

$\sqrt{-294}$

a. $-294i$

b. $i\sqrt{-294}$

c. $-7i\sqrt{6}$

d. $7i\sqrt{6}$

Save answer

Finish Help