

Glendale Community College, AZ

Intermediate Algebra Review for Accuplacer Placement Exam

This exam is intended as an overall review and includes problems similar to what you may expect on the exam. However, it is NOT a sample exam.

Accuplacer Exam Info

- Consult the following web site for the most up-to-date information on placement testing at GCC.

<http://www.gccaz.edu/testing>

Google “GCC Testing Services.”

- The most recent version of this exam should be available at
<http://www2.gccaz.edu/academics/departments/mathematics-computer-science/assessment-practice-tests>.

- Please send any comments to

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Please include the following information in your email:

LAST COMPILED DATE: August 18, 2017

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1. Solve $2x^2 - 7x + 6 = 0$.

- (a) $\left\{\frac{2}{3}, -2\right\}$ (b) $\left\{\frac{3}{2}, 2\right\}$ (c) $\left\{-\frac{3}{2}, 2\right\}$ (d) $\left\{-\frac{2}{3}, -2\right\}$
-

2. Solve the system of linear equations.
$$\begin{array}{rcl} 3x & + & y = 13 \\ 2x & + & 9y = -8 \end{array}$$

- (a) $(-5, 2)$ (b) $(5, 2)$ (c) $(5, -2)$ (d) $(-5, -2)$
-

3. Solve the linear equation. $-8x + 3(-2x - 2) = -12 - 8x$

- (a) 1 (b) 3 (c) -1 (d) $\frac{9}{11}$
-

4. Solve the radical equation. $3\sqrt{5 - 2x} = 9$

- (a) -2 (b) 2, 38 (c) 3, 8 (d) 2
-

5. Solve the inequality. $10 - 4a - 7 \geq -5a - 6$

- (a) $(-\infty, -4)$ (b) $(-4, \infty)$ (c) $[-9, \infty)$ (d) $(-\infty, -9]$
-

6. During one year the Larson's real estate bill included \$443 for local schools. Of this amount, \$175 went to the high school district. What percent did the Larsons pay to the high school district?

- (a) 60.50% (b) 39.50% (c) 39.28% (d) 17.50%
-

7. On Monday an investor bought 100 shares of stock. On Tuesday the value of the shares went up 4%. How much did the investor pay for the shares if he sold them Wednesday morning for \$1248?

- (a) \$1189.08 (b) \$1020 (c) \$1198.08 (d) \$1200
-

8. Solve the absolute value inequality. $|h + 3| + 9 \leq 12$

- (a) \emptyset (b) $[-6, 0]$ (c) $[-6, 12]$ (d) $(-6, 0)$
-

9. Find $f(-1)$ if $f(x) = x^2 + 2x + 7$

- (a) -4 (b) -8 (c) 10 (d) 6
-

10. Find the product. $(x - 2)(5x - 2)$

- (a) $x^2 - 12 - 12$ (b) $5x^2 + 4x - 12$ (c) $5x^2 - 12x + 4$ (d) $5x^2 - 13x + 4$

11. Find the product. $(5x + 3)(x^2 - 3x - 4)$

(a) $5x^3 - 12x^2 - 29x - 12$

(b) $5x^3 + 12x^2 - 29x - 12$

(c) $5x^3 - 12x^2 + 29x - 12$

(d) $5x^3 - 12x^2 - 29x + 12$

12. Simplify. $\frac{4 + \frac{1}{2}}{\frac{1}{3} + \frac{1}{6}}$

(a) 9

(b) $\frac{5}{9}$

(c) 12

(d) $\frac{1}{12}$

13. Simplify. $\frac{\frac{5}{x-5} + \frac{3}{x+3}}{\frac{5}{x+3} + \frac{3}{x-5}}$

(a) 1

(b) $\frac{x-2}{x}$

(c) $\frac{x}{x+2}$

(d) $\frac{x}{x-2}$

14. Find the slope of the line through the points $(7, -9)$ and $(-4, -1)$

(a) $-\frac{16}{3}$

(b) $-\frac{11}{8}$

(c) $-\frac{3}{16}$

(d) $-\frac{8}{11}$

15. Solve the absolute value equation. $|5m + 2| + 5 = 8$

(a) \emptyset

(b) $\left\{-1, \frac{1}{5}\right\}$

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

(d) $\left\{-\frac{1}{5}, 1\right\}$

16. Multiply and simplify. Write your answer in radical notation. $\sqrt[3]{xy^5}\sqrt[3]{x^7y^{17}}$

(a) $x^2y^7\sqrt[3]{xy^2}$

(b) $x^2y^7\sqrt{xy^2}$

(c) $x^2y^7\sqrt[3]{x^2y}$

(d) $x^7y^2\sqrt{x^2y}$

17. Simplify. $\frac{\sqrt[5]{320x^{13}y^{18}}}{\sqrt[5]{10x^3y^3}}$

(a) $2x^2y^3\sqrt{y}$

(b) $2x^2y^3$

(c) $2x^2y^3\sqrt[5]{y}$

(d) $16x^5y^8\sqrt{10}$

18. Multiply out. $(9 - 6i)^2$

(a) $81 - 72i$

(b) $117 - 108i$

(c) $81 - 144i$

(d) $45 - 108i$

19. Factor completely. $x^2 + 7xy - 144y^2$

(a) $(x - 16y)(x + y)$

(b) $(x - 16y)(x + 9y)$

(c) $(x - y)(x + 9y)$

(d) $(x + 16y)(x - 9y)$

20. Factor by grouping. $10x^2 + 6xy - 25xy - 15y^2$

(a) $(2x - 5)(5x + 3)$

(b) $(10x - 5y)(x + 3y)$

(c) $(2x + 5y)(5x + 3y)$

(d) $(2x - 5y)(5x + 3y)$

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ANSWER KEY

- | | |
|-------|-------|
| 1. b | 11. a |
| 2. c | 12. a |
| 3. a | 13. d |
| 4. a | 14. d |
| 5. c | 15. b |
| 6. b | 16. c |
| 7. d | 17. b |
| 8. b | 18. d |
| 9. d | 19. d |
| 10. c | 20. d |