

Aim: How do we prepare for the college math placement exam(College Board College Algebra)?

Get Ready: Begin Review Guide.

1. $2^{\frac{5}{2}} - 2^{\frac{3}{2}}$

A. $2^{\frac{1}{2}}$

B. 2

C. $2^{\frac{3}{2}}$

D. $2^{\frac{5}{3}}$

E. 2^2

2. If $a \neq b$ and $\frac{1}{x} + \frac{1}{a} = \frac{1}{b}$, then $x =$

A. $\frac{1}{b} - \frac{1}{a}$

B. $b - a$

C. $\frac{1}{ab}$

D. $\frac{a-b}{ab}$

E. $\frac{ab}{a-b}$

3. The graph of which of the following equations is a straight line parallel to the graph of $y = 2x$?

A. $4x - y = 4$

B. $2x - 2y = 2$

C. $2x - y = 4$

D. $2x + y = 2$

E. $x - 2y = 4$

4. An apartment building contains 12 units consisting of one- and two-bedroom apartments that rent for \$360 and \$450 per month, respectively. When all units are rented, the total monthly rental is \$4,950. What is the number of two-bedroom apartments?

A. 3

B. 4

C. 5

D. 6

E. 7

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5. If $\log_{10} x = 3$, then $x =$

- A. 3^{10}
- B. 1,000
- C. 30
- D. $\frac{10}{3}$
- E. $\frac{3}{10}$

6. An equation of the line that contains the origin and the point (1, 2) is

- A. $y = 2x$
- B. $2y = x$
- C. $y = x - 1$
- D. $y = 2x + 1$
- E. $\frac{y}{2} = x - 1$

7. If $f(x) = 2x + 1$ and $g(x) = \frac{x-1}{2}$, then $f(g(x)) =$

- A. x
- B. $\frac{x-1}{4x+2}$
- C. $\frac{4x+2}{x-1}$
- D. $\frac{5x+1}{2}$
- E. $\frac{(2x+1)(x-1)}{2}$

8. If θ is an acute angle and $\sin \theta = \frac{1}{2}$, then $\cos \theta =$

- A. -1
- B. 0
- C. $\frac{1}{2}$
- D. $\frac{\sqrt{3}}{2}$
- E. 2

Solutions: 1. C 2. E 3. C 4. E
5. b 6. A 7. A 8. D