

Next Generation ACCUPLACER Scores Quantitative Reasoning Algebra and Statistics

Section: ACCUPLACER Next Generation Quantitative Reasoning Algebra and Statistics Exams • Total Questions: 10 •

Format: Verified Q&A

1. If $|x|=|y|$ and $x=y$ which of the following must be true? I. $x+y=0$ II. $xy<0$ III. $x^2=y^2$

- (A) III only
 - (B) I and II only
 - (C) I and III only
 - (D) II and III
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2. If the average (arithmetic mean) of g and 100 is 75, what is the value of $g + 100$?

- (A) 50
 - (B) 125
 - (C) 150
 - (D) 175
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3. Susan drives her car at an average speed of s miles per hour for t hours and travels 215 miles. Which of the following equations represents this information?

- (A) $st = 215$
 - (B) $215 + t = s$
 - (C) $s/t = 215$
 - (D) $s + t = 215$
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4. A recipe for strawberry jam requires two pounds of berries to make five quarts of jam. To make 13 quarts of jam it will take ____ pounds of berries. (round to nearest tenth)

- (A) 2.5
 - (B) 4.8
 - (C) 5.2
 - (D) 8.6
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5. Of the following expressions, which is equivalent to $2^x \cdot 4^{2x}$?

- (A) $25x$
 - (B) $29x$
 - (C) $24x^2$
 - (D) $25x^2$
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6. The population of a certain bacteria can be modeled by the function $P(t)=2000(1.034)^t$ where t represents the number of hours after an experiment has started. What does 2,000 represent in the function?

- (A) The amount of time the experiment lasts
 - (B) The population of bacteria when the experiment ends
 - (C) The population of bacteria when the experiment started
 - (D) The percent the population of bacteria changes every hour
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7. The largest square above has sides of length 8 and is divided into the two shaded rectangles and two smaller squares labeled I and II. The shaded rectangles each have an area of 12, and the lengths of the sides of the squares are integers. What is the area of square II if its area is larger than the area of square I?

- (A) 9
 - (B) 16
 - (C) 25
 - (D) 36
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8. A salesperson's commission is k percent of the selling price of a car. Which of the following represents the commission, in dollars, on 2 cars that sold for \$14,000 each?

- (A) $280k$
 - (B) $28,000k$
 - (C) $14,000/(100+2k)$
 - (D) $(28,000+k)/100$
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9. The graph of $y = \log_{10}(x)$ in the xy -plane intersects the y -axis at what value of y ?

- (B) 110
 - (C) 1
 - (D) 10
 - (E) does not intersect the y -axis.
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10. Which of the following could be an equation of the line graphed in the xy-plane above?

(A) $y = -x - 3$

(B) $y = -x + 3$

(C) $y = x - 3$

(D) $y = x + 3$