

Pre-test GMAT Holland

September 6, 2014

With this pre-test, we can give you advise on which package you should choose. It is important to not use a calculator. Good luck!

Exponents

Calculate the following expressions, simplify as far as possible.

1A $(-3)^3$

1B $16^{\frac{1}{4}}$

1C $\sqrt{16 \times 25}$

1D $5^9 \times 5^{-7}$

1E $\frac{2^{13}}{2^8}$

1F 8^0

1G $(-9)^2$

1H $4^{\frac{1}{2}} \times 9^{\frac{1}{2}}$

Fractions

Write the expressions into a reduced fraction, simplify as far as possible.

2A $\frac{1}{6} - \frac{3}{6}$

2B $\frac{1}{3} + \frac{3}{5}$

2C $\frac{2}{3} \times \frac{5}{6}$

2D $4 \times \frac{1}{2}$

2E $\frac{\frac{2}{7}}{3}$

2F $\frac{30}{75}$

2G $\frac{\frac{a}{4}}{\frac{3}{b}}$

2H $\frac{\frac{1}{2}}{\frac{3}{4}}$

2I $\frac{a}{3} \times \frac{a}{2}$

2J $\frac{2}{a} + \frac{3}{b}$

Equations

Write without brackets

3A $5 \times (2 + a)$

3B $2 + (b - 7)$

3C $(a + b)(a - b)$

Solve for x

3D $2x^2 + 7 = 39$

3E $(x - 3)(x + 7) = 0$

3F $x^2 + 4x - 12 = 0$

3G $5x + 3 = 28$

3H $\frac{2x^3}{4} = 4$

3I $3x + 9y = 6$

3J $-4x + 7 > 15$

Problem Solving

Calculate the following questions.

4 Bart has b books, which is 3 times as many as Kevin and $\frac{1}{2}$ times as many as Patricia. How many books do they have together, in terms of b ?

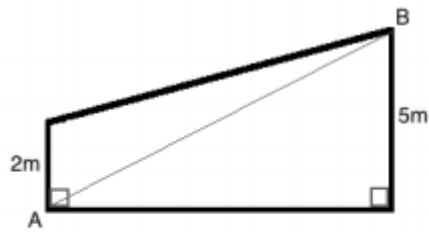
- (A) $\frac{5}{6}b$
- (B) $\frac{7}{3}b$
- (C) $\frac{10}{3}b$
- (D) $\frac{7}{2}b$
- (E) $\frac{9}{2}b$

5 If $A = \frac{5}{9}(B - 32)$, and if $A = 290$, then $B =$

- (A) $\frac{1738}{9}$
- (B) 322
- (C) 490
- (D) 554
- (E) $\frac{2898}{5}$

6 A rectangular window is twice as long as it's wide. If the perimeter is 10 feet, then it's dimensions in feet are

- (A) $\frac{3}{2}$ by $\frac{7}{2}$
- (B) $\frac{5}{3}$ by $\frac{10}{3}$
- (C) 2 by 4
- (D) 3 by 6
- (E) $\frac{10}{3}$ by $\frac{20}{3}$



- 7 The trapezoid above represents a ramp for snowboarding. If the distance from A to B is 13 meters, what is the area of the ramp in square meters?
- (A) 39
(B) 40
(C) 42
(D) 45
(E) 46, 5
- 8 A committee is composed of w woman and m men. If 5 woman and 3 men are added to the committee, and if one person is selected randomly from the enlarged committee, then the probability that a woman is selected can be represented by
- (A) $\frac{w}{m}$
(B) $\frac{w}{w+m}$
(C) $\frac{w+5}{m+3}$
(D) $\frac{w+5}{w+m+5}$
(E) $\frac{w+5}{w+m+8}$

Data Sufficiency

The following questions contain two pieces of information and you need to look whether the pieces of information are sufficient to answer the question asked or not. Your possible answers are the following.

- (A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.
- (B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.
- (C) BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.
- (D) EACH statement ALONE is sufficient to answer the question asked.
- (E) Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked and additional data specific to the problem are needed.

9 If i and j are integers, is $i + j$ an even integer?

(1) $i < 20$

(2) $i = j$

10 Is y a negative number?

(1) $9y > 10y$

(2) $y + 3$ is positive

11 How many people are directors of both company R and company G?

(1) There were 17 directors present at a joint meeting of the directors of company R and company G, there were no directors absent

(2) Company R has 12 directors and company G has 8 directors

12 In a school, 300 students study French or German or both. If 100 of these students do not study French, how many of these study both French and German?

(1) Out of 300 students, 60 do not study German

(2) A total of 240 study German

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- 13 How much did a certain telephone call cost?
- (1) The call lasted 34 minutes
 - (2) The cost for the first 4 minutes was 5 times the cost for each additional minute

- 14 What was Macha's average speed in miles-per-hour?
- (1) Macha drove 100 miles
 - (2) Macha drove for 2 hours