MATH-A

Equations one variable review

[Exam ID:GSAT76

Exam not valid for Paper Pencil Test Sessions

1 **What is the solution for *a* in the following equation?**

$$2b - a = 5$$

A $a = 2b + 5$
B $a = -2b - 5$
C $a = 2b - 5$
D $a = -2b + 5$

2 **If $A = bc + us$, which equation is solved for s?**

A $s = \frac{bc}{A-u}$
B $s = A - bc - u$
C $s = \frac{A-bc}{u}$
D $s = \frac{A+bc}{u}$

3 **The perimeter, *P*, of a rectangle is related to its length, *l*, and width, *w*, using the formula $P = 2(l + w)$. If the perimeter and width of the rectangle are known, which expression can be used to find the length, *l*, of the rectangle?**

A $2(P + w)$ **B** $\frac{(P - w)}{2}$ **C** $(\frac{w}{2}) - P$ **D** $(\frac{P}{2} - w)$

4 **This statement is justified by which property of equality?**

"If $x = y$ and $y = 3$, then $x = 3$"

A Symmetric property
B Transitive property
C Reflexive property
D Identity property

5 **Justin shows his work in solving the equation shown.**

Justin's Work

Step 1	$5(2x + 3) = 45$
Step 2	$5(2x) + 5(3) = 45$
Step 3	$10x + 15 = 45$
Step 4	$10x + 15 - 15 = 45 - 15$
Step 5	$10x = 30$
Step 6	$\left(\frac{1}{10}\right)10x = \left(\frac{1}{10}\right)30$
Step 7	$x = 3$

Between which steps does Justin use the multiplication property of equality to justify his work?

A Step 1 and Step 2
B Step 5 and Step 6
C Step 2 and Step 3
D Step 6 and Step 7

6 **Which property of real numbers justifies the work shown?**

13*x* - 1 = (12*x* + 15) + 7*x*
13*x* - 1 = 7*x* + (12*x* + 15)

A Commutative property of addition
B Associative property of addition
C Identity property of addition
D Distributive property

7 **What is the solution for the following equation?**

6(*x* + 5) + 2 = 8(2*x* - 5) + 22

A -5
B 5
C 3
D 4.8

8 **What value of *x* makes this equation true?**

3*x* - 20 = -2*x*

A -20
B -4
C 4
D 20

9 Directions: Type your answer in the box.

Solve for *n* :

$$\frac{3n - 7}{6} = \frac{2n + 5}{3}$$

$n =$

10 **What is the solution to**

$$5 - \frac{n}{2} = 12?$$

A -34
B 34
C -14
D 14

11 **Maria called her sister long distance on Wednesday . The first 5 minutes cost $3, and each minute after that cost $0.25. How much did it cost if they talked for 15 minutes?**

A $ 3.25
B $ 6.75
C $ 9.00
D $ 5.50

12 **In addition to an $80 bonus, Joan earned $8 per hour working last week. Joan's total earnings last week were $240. How many total hours did she work last week?**

A 30
B 40
C 10
D 20

13 **Joey went bowling at the Frank's Bowling Center. Shoe rental was $1.25 and games were $1.50 each. If he spent $8.75 on shoe rental and games, how many games did he bowl?**

A 2
B 6
C 5
D 4