

**A.A.1: Expressions 1: Translate a quantitative verbal phrase into an algebraic expression**

- 1 Which algebraic expression represents 15 less than  $x$  divided by 9?
  - 1)  $\frac{x}{9} - 15$
  - 2)  $9x - 15$
  - 3)  $15 - \frac{x}{9}$
  - 4)  $15 - 9x$
- 2 A correct translation of “six less than twice the value of  $x$ ” is
  - 1)  $2x < 6$
  - 2)  $2x - 6$
  - 3)  $6 < 2x$
  - 4)  $6 - 2x$
- 3 Which expression represents “5 less than twice  $x$ ”?
  - 1)  $2x - 5$
  - 2)  $5 - 2x$
  - 3)  $2(5 - x)$
  - 4)  $2(x - 5)$
- 4 Jose wants to ride his bike a total of 50 miles this weekend. If he rides  $m$  miles on Saturday, which expression represents the number of miles he must ride on Sunday?
  - 1)  $m - 50$
  - 2)  $m + 50$
  - 3)  $50 - m$
  - 4)  $50m$
- 5 Marcy determined that her father's age is four less than three times her age. If  $x$  represents Marcy's age, which expression represents her father's age?
  - 1)  $3x - 4$
  - 2)  $3(x - 4)$
  - 3)  $4x - 3$
  - 4)  $4 - 3x$
- 6 Julie has three children whose ages are consecutive odd integers. If  $x$  represents the youngest child's age, which expression represents the sum of her children's ages?
  - 1)  $3x + 3$
  - 2)  $3x + 4$
  - 3)  $3x + 5$
  - 4)  $3x + 6$
- 7 Marie currently has a collection of 58 stamps. If she buys  $s$  stamps each week for  $w$  weeks, which expression represents the total number of stamps she will have?
  - 1)  $58sw$
  - 2)  $58 + sw$
  - 3)  $58s + w$
  - 4)  $58 + s + w$
- 8 Marie currently has a collection of 58 stamps. If she buys  $s$  stamps each week for  $w$  weeks, which expression represents the total number of stamps she will have?
  - 1)  $58sw$
  - 2)  $58 + sw$
  - 3)  $58s + w$
  - 4)  $58 + s + w$

- 9 Which expression represents the number of hours in  $w$  weeks and  $d$  days?
- $7w + 12d$
  - $84w + 24d$
  - $168w + 24d$
  - $168w + 60d$
- 10 If Angelina's weekly allowance is  $d$  dollars, which expression represents her allowance, in dollars, for  $x$  weeks?
- $dx$
  - $7dx$
  - $x + 7d$
  - $\frac{d}{x}$
- 11 Timmy bought a skateboard and two helmets for a total of  $d$  dollars. If each helmet cost  $h$  dollars, the cost of the skateboard could be represented by
- $2dh$
  - $\frac{dh}{2}$
  - $d - 2h$
  - $d - \frac{h}{2}$
- 12 Owino gets paid \$280 per week plus 5% commission on all sales for selling electronic equipment. If he sells  $n$  dollars worth of electronic equipment in one week, which algebraic expression represents the amount of money he will earn that week?
- $280n + 5$
  - $280n + 0.05$
  - $280 + 0.05n$
  - $280 + 5n$
- 13 Tim ate four more cookies than Alice. Bob ate twice as many cookies as Tim. If  $x$  represents the number of cookies Alice ate, which expression represents the number of cookies Bob ate?
- $2 + (x + 4)$
  - $2x + 4$
  - $2(x + 4)$
  - $4(x + 2)$
- 14 Mr. Turner bought  $x$  boxes of pencils. Each box holds 25 pencils. He left 3 boxes of pencils at home and took the rest to school. Which expression represents the total number of pencils he took to school?
- $22x$
  - $25x - 3$
  - $25 - 3x$
  - $25x - 75$
- 15 What is the perimeter of a regular pentagon with a side whose length is  $x + 4$ ?
- $x^2 + 16$
  - $4x + 16$
  - $5x + 4$
  - $5x + 20$
- 16 The length of a rectangular room is 7 less than three times the width,  $w$ , of the room. Which expression represents the area of the room?
- $3w - 4$
  - $3w - 7$
  - $3w^2 - 4w$
  - $3w^2 - 7w$

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## **Answer Section**

1 ANS: 1 REF: 081110ia

2 ANS: 2 REF: 081215ia

3 ANS: 1 REF: 061301ia

4 ANS: 3 REF: 011507ia

5 ANS: 1 REF: 061204ia

6 ANS: 4  
 $x + x + 2 + x + 4 = 3x + 6$

REF: 011430ia

7 ANS: 2 REF: 060904ia

8 ANS: 2 REF: 081305ia

9 ANS: 3 REF: 061323ia

10 ANS: 1 REF: 011303ia

11 ANS: 3 REF: 011205ia

12 ANS: 3 REF: 061519ia

13 ANS: 3 REF: 011104ia

14 ANS: 4  
 $25(x - 3) = 25x - 75$

REF: 060823ia

15 ANS: 4  
 $5(x + 4) = 5x + 20$

REF: 081013ia

16 ANS: 4  
 $A = lw = (3w - 7)(w) = 3w^2 - 7w$

REF: 010924ia