



Mathematics Grade 7

Ainslie Q2 Benchmark Review

Ainslie Q2 Benchmark Review

WAKE COUNTY SCHOOLS

2013 - 2014

ALL RIGHTS RESERVED

Content of this booklet is subject to copyright and restrictions of several organizations, companies and authors. You may distribute this test only to the actively subscribed students during the specific subscription term and as per the subscription agreement terms

1. Felisha has \$255 in her savings account. She plans to contribute \$35 each month (m) until her savings has tripled.

Which equation can Felisha use to determine the number of months it will take to triple her savings account?

- A. $35m + 255 = 765$
- B. $3(35m + 255) = 765$
- C. $35m + 255m = 765$
- D. $35m + 3(255) = 765$
2. Kenny and Sarah both get paid an equal hourly wage of \$11 per hour. This week, Kenny made an additional \$132 dollars in overtime.

Which is an expression that represents the weekly wages of both if K = the number of hours that Kenny worked this week and S = the number of hours Sarah worked this week?

- A. $11K + 11S + (K + S)$
- B. $11(K + S) + 12$
- C. $11(K + S) + 132$
- D. $K + S + 132$

3. Emily and Mollie both get paid an equal hourly wage of \$12 per hour. This week, Mollie made an additional \$48 dollars in overtime.

Which is *not* an expression that represents the weekly wages of both if E = the number of hours that Emily worked this week and M = the number of hours Mollie worked this week?

- A. $12E + 12M + 48$
- B. $12(E + M) + 48$
- C. $12(E + M + 4)$
- D. $12(E + M + 48)$
4. George's salary, S , was increased by 12%. What expression represents his current salary?

- A. $1.12S$
- B. $100 + 12S$
- C. $100S + 12\%$
- D. $112S$

5. The annual rainfall this year was 8% less than that for the previous year, R .

What expression represents the decrease in the rainfall?

- A. $0.08R$
- B. $0.8R$
- C. $R - 0.92$
- D. $R - 0.8\%$

6. What is equivalent to " M increased by 12.5%"?
- A. $0.125M$
- B. $12.5M$
- C. $M + 0.125M$
- D. $M + 12.5M$
7. What expression is equivalent to "37.5% of R "?
- A. $\frac{37.5}{100}$
- B. $\frac{37.5}{100}R$
- C. $37.5R$
- D. $R + 37.5R$
8. Which expression is equivalent to "20% of R + 30% of R "?
- A. $0.5R$
- B. $R + 50\%R$
- C. $R + 20\%R + 30\%R$
- D. $150R$

9. Jerome and Jillian set up a lemonade stand. They sell lemonade and sweet tea. Each cup costs \$0.50.

Which two expressions show how Jerome and Jillian can determine their total sales (S) based on the number of cups of lemonade sold (L) and the number of cups of sweet tea sold (T)?

- A. $S = 0.50L + 0.50T$
 $S = 0.50(L \times T)$
- B. $S = 0.50L + 0.50T$
 $S = 0.50(L + T)$
- C. $S = 0.50L + 0.50T$
 $S = 0.50 + (L \times T)$
- D. $S = 0.50L + 0.50T$
 $S = 0.50 + (L + T)$
10. On a 50-question math test, a student receives 10 points for every question answered correctly and loses 3 points for every question answered incorrectly.

If c represents the number of questions answered correctly, which expression can be used to calculate a student's score?

- A. $10c - 3$
- B. $10c - 3(50 - c)$
- C. $7c$
- D. $7(50 - c)$

11. Jonathan and Shaneeka both get paid an equal hourly wage of \$12 per hour. This week, Jonathan earned an additional \$54 as a bonus. To calculate the total earnings for both Jonathan and Shaneeka, 4 expressions are written in which J represents the number of hours Jonathan worked, and S represents the number of hours Shaneeka worked.

Expression 1: $12J + 12S + 54$

Expression 2: $12(J + S) + 54$

Expression 3: $(12J + 54.J) + 12S$

Expression 4: $(12J + 54) + 12S$

Which expression is *not* correct?

- A. Expression 1
- B. Expression 2
- C. Expression 3
- D. Expression 4
12. At a coffee shop, both caffeinated and decaffeinated coffees cost \$1.29. Which pair of equations shows 2 ways to express the total sales if d represents the cups of decaffeinated coffees sold and c represents the cups of caffeinated coffees sold?
- A. $1.29d + c$
 $1.29(d \cdot c)$
- B. $1.29d + c$
 $1.29(d + c)$
- C. $1.29d + 1.29c$
 $1.29(d \cdot c)$
- D. $1.29d + 1.29c$
 $1.29(d + c)$

13. Tiffany bought a shirt worth c dollars and got a discount of 8% on the original price. What expression shows the total amount she paid?

A. $c - 0.08$

B. $0.92c$

C. $0.08c$

D. $c - 8c$

14. The cost to make a coffee table is x dollars. The store sells the table for 60% more than how much it costs to make. What expression shows the selling price of the coffee table?

A. $0.6x$

B. $1.6x$

C. $6x$

D. $60x$

15. Cindy and Heather both get paid an equal hourly wage of \$15 per hour. This week, Cindy made an additional \$35 in overtime. If this week, Cindy worked for c hours and Heather worked for h hours, what expression represents the combined amount they made this week?

A. $c + h$

B. $15(c + h)$

C. $c + h + 35$

D. $15(c + h) + 35$

16. Ken gets a 6% raise over what he made last year. If he made $\$a$ last year, then what expression shows his salary for this year?

A. $0.6a$
B. $1.06a$
C. $6a$
D. $60a$

17. A teacher asked four of her students to write an expression for the problem below.

All products in a store are being discounted by 25%. Let x be the original price of a product in the store. What is the sale price of that product in the store? Their responses are show below:

Joseph: $0.75x$

Thomas: $1.25x$

Sandra: $x - 0.25x$

Angela: $x + 0.25x$

Whose response is correct?

A. Sandra only
B. Thomas only
C. Joseph and Sandra
D. Thomas and Angela

18. A local florist buys a dozen roses for x dollars. He plans to sell the roses at a 40% mark-up. What expression shows the selling price of the one dozen roses?

A. $0.40x$
B. $1.40x$
C. $x + 0.40$
D. $x + 1.40x$

19. An airplane flew for 4 hours at a speed of x miles per hour (mph), and at $(x + 10)$ mph for next 4 hours. What expression can be used to find the total distance covered by the airplane?

A. $8x$
B. $8(x + 5)$
C. $8(x + 10)$
D. $8x + 10$

20. Americans spend 32% of their annual food budget on fast food. If this year, their annual food budget is represented by x , what expression gives what they spent on food other than fast food?

A. $0.32x$
B. $1.32x$
C. $x - \frac{32}{100}$
D. $x - \frac{32}{100}x$

#	Answer	Objective
1.	A	Obj : 7.EE.2. Understand that rewriting an expression...
2.	C	Obj : 7.EE.2. Understand that rewriting an expression...
3.	D	Obj : 7.EE.2. Understand that rewriting an expression...
4.	A	Obj : 7.EE.2. Understand that rewriting an expression...
5.	A	Obj : 7.EE.2. Understand that rewriting an expression...
6.	C	Obj : 7.EE.2. Understand that rewriting an expression...
7.	B	Obj : 7.EE.2. Understand that rewriting an expression...
8.	A	Obj : 7.EE.2. Understand that rewriting an expression...
9.	B	Obj : 7.EE.2. Understand that rewriting an expression...
10.	B	Obj : 7.EE.2. Understand that rewriting an expression...

#	Answer	Objective
11.	C	Obj : 7.EE.2. Understand that rewriting an expression...
12.	D	Obj : 7.EE.2. Understand that rewriting an expression...
13.	B	Obj : 7.EE.2. Understand that rewriting an expression...
14.	B	Obj : 7.EE.2. Understand that rewriting an expression...
15.	D	Obj : 7.EE.2. Understand that rewriting an expression...
16.	B	Obj : 7.EE.2. Understand that rewriting an expression...
17.	C	Obj : 7.EE.2. Understand that rewriting an expression...
18.	B	Obj : 7.EE.2. Understand that rewriting an expression...
19.	B	Obj : 7.EE.2. Understand that rewriting an expression...
20.	D	Obj : 7.EE.2. Understand that rewriting an expression...

Objectives Measured:	Items	Questions measuring this objective
Obj : 7.EE.2. Understand that rewriting an expression...	20	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

#	Key	Item ID
1.	A	MC 122868
2.	C	MC 125011
3.	D	MC 125010
4.	A	MC 137563
5.	A	MC 137564
6.	C	MC 137565
7.	B	MC 137566
8.	A	MC 137567
9.	B	MC 142015
10.	B	MC 142016

#	Key	Item ID
11.	C	MC 142291
12.	D	MC 142299
13.	B	MC 146945
14.	B	MC 146946
15.	D	MC 146948
16.	B	MC 146949
17.	C	MC 151199
18.	B	MC 151200
19.	B	MC 151201
20.	D	MC 151202