

Decatur City Schools

Summer Math Learning Packet Students entering 7th grade

Hooray! It is summertime – time to relax, enjoy long days and prepare for the school year ahead. To ensure success in the classroom, adequate preparation must take place. One of the easiest ways to prepare for the next school year is by reviewing skills learned in small doses throughout the summer break.

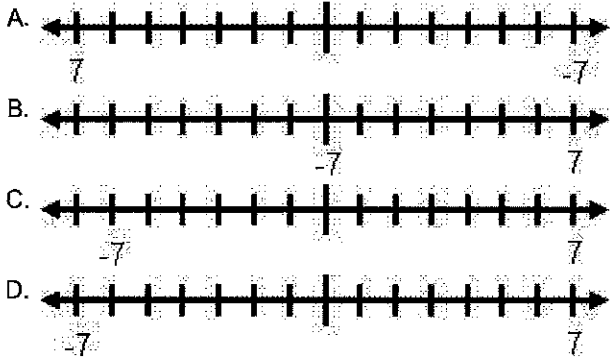
Attached is a comprehensive 25 question assessment that will test a student's recall of facts learned and problem solving abilities. These questions have been carefully selected to help a student determine any deficits in math skills learned from the 6th grade year. If a student needs remediation in any of the areas tested, there is a long list of websites and Apps attached to the test to look for assistance. (Note: some of the websites/apps are games and could be used through the summer for practice fun.....and “meaningful” screen time.)

Upon return to school, math teachers will be assessing the math “work” and answers from the Summer Math Learning Packet – and it will count as a grade in iNow. Be sure not to lose your work and answers!

Summer Packet 7th

Name: _____
Class: _____
Date: _____

1. Which number line shows the correct locations of -7 and 7?



2. Which of the following tables contains ordered pairs that are all opposites?

A.

x	y
5	5
6	6
7	7
8	8

B.

x	y
9	-9
10	-10
11	-11
12	-12

C.

x	y
0	1
0	-1
0	2
0	-2

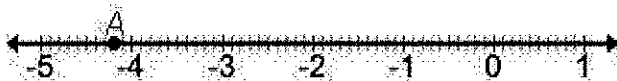
D.

x	y
4	$-\frac{1}{4}$
3	$-\frac{1}{3}$
2	$-\frac{1}{2}$
0	-0

3. What is the opposite of zero?

- A. 0
- B. ∞
- C. $-\infty$
- D. -0

4. Which number could be represented by the point A on the number line below?



- A. -3.7
- B. -4.2
- C. -2.8
- D. -5.8

5. Which of the following shows a pair of opposite numbers?

- A. $-8.0, 0.8$
- B. $11, -11$
- C. $\frac{1}{2}, -2$
- D. $0, -0$

6. Subtract.

$$6 - 5\frac{3}{4}$$

A. $1\frac{1}{4}$

B. $1\frac{3}{4}$

C. $\frac{1}{4}$

D. $\frac{3}{4}$

7. Multiply.

$$\frac{1}{6} \times \frac{4}{5}$$

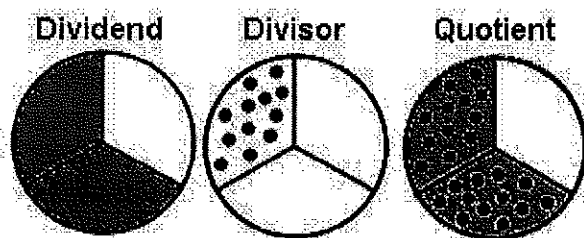
A. $\frac{4}{11}$

B. $\frac{1}{6}$

C. $\frac{1}{15}$

D. $\frac{2}{15}$

8. Miguel drew the following diagram to represent one of his math problems.



Which of the following is Miguel's problem?

A. $\frac{1}{3} \div \frac{2}{3} = \frac{1}{2}$

B. $\frac{2}{3} \div \frac{1}{3} = \frac{1}{2}$

C. $\frac{1}{3} \div \frac{2}{3} = 2$

D. $\frac{2}{3} \div \frac{1}{3} = 2$

9. Add.

$$\frac{11}{12} + \frac{3}{4}$$

A. $1\frac{2}{3}$

B. $1\frac{1}{6}$

C. $\frac{7}{8}$

D. $2\frac{1}{3}$

10. Look at the ingredients for a fruit salad.

Fruit Salad	
$\frac{1}{3}$	of a cup of blueberries
$\frac{1}{4}$	of a cup of watermelon
$\frac{1}{2}$	of a cup of bananas
Mix and serve.	

How much more bananas than blueberries is used in this recipe?

- A. $\frac{1}{2} - \frac{1}{3} = \frac{1}{6}$ of a cup
- B. $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$ of a cup
- C. $\frac{1}{2} + \frac{1}{3} = \frac{1}{5}$ of a cup
- D. $\frac{1}{2} - \frac{1}{3} = \frac{1}{2}$ of a cup

11. Which expression represents the verbal description below?

the product of 2.3 and the sum of 5 and a number

- A. $(2.3)5 + p$
- B. $(2.3)(5 + p)$
- C. $2.3p + 5$
- D. $2.3p + 5p$

12. Which of the following is one step that can be used to show that the expressions are equivalent?

- A. $2x + 12 = x + x + 25 - 13$
 $2 \cdot 6 + 12 = 6 + 6 + 25 - 13$
- B. $2x + 12 = x + x - 12$
 $2 \cdot 6 + 12 = 6 + 6 - 12$
- C. $2x + 12 = 2x - 12$
 $2 \cdot 6 + 12 = 2 \cdot 6 - 12$
- D. $2x + 12 = 2x + 25 + 13$
 $2 \cdot 6 + 12 = 2 \cdot 6 + 25 + 13$

13. Darla has four more than three times the number of coins that her sister has. Which expression represents the number of coins Darla has if her sister has a certain number of coins, c ?
- A. $4c + 3$
 - B. $3c + 4$
 - C. $c + 4$
 - D. $c + 3$
14. How many terms are in the expression below?
- $$2x^2 - 5x + 8$$
- A. 2 terms
 - B. 3 terms
 - C. 4 terms
 - D. 5 terms
15. Micah is trying to find the total weight of four bags of apples. He knows he will need a variable to write his expression. Which of the following will his variable most likely represent?
- A. number of apples in each bag
 - B. weight of each bag
 - C. total price of his purchase
 - D. total number of apples
16. Carla has 15 storybooks. Which equation can Carla use if she wants to determine how many books she should buy to have a total of 22 books?
- A. $15 + 22 = b$
 - B. $b + 15 = 22$
 - C. $15 - b = 22$
 - D. $b - 22 = 15$

17. The length of a rectangle is more than the width by x units. If the width is 20 units and the length is 25 units, which equation can be used to find x , and what is its value?

- A. $20 - x = 25$
 $x = 5$
- B. $20 - x = 25$
 $x = 45$
- C. $20 + x = 25$
 $x = 5$
- D. $20 + x = 25$
 $x = 45$

18. Which value of x will make the equation below true?

$$2x + 5 = 8$$

- A. $x = \frac{3}{2}$
- B. $x = 3$
- C. $x = \frac{13}{2}$
- D. $x = 13$

19. Polly has to choose a number from the set $\{2, 8, 10, 15\}$ as the solution to the equation below.

$$2(x - 3) = 10$$

From the set, _____.

- A. 2 is the only solution because it matches the coefficient of x
- B. 10 is the only solution because it is the only number on the right side of the equation
- C. 8 is the only solution because the difference between 8 and 3 is 5 and the product of 2 and 5 is 10
- D. 15 is the only solution because the sum of 2, 3, and 10 is 15

20. Which value of x will make the equation below true?

$$2x + 5 = 8$$

- A. $x = \frac{3}{2}$
- B. $x = 3$
- C. $x = \frac{13}{2}$
- D. $x = 13$

21. What values of p will make the inequality below true?

$$5p - 12 < 24$$

A. $p < 7\frac{1}{5}$

B. $p > 7\frac{1}{5}$

C. $p > 2\frac{2}{5}$

D. $p < 2\frac{2}{5}$

22. What value makes the inequality below true?

$$4t + 1 > 3t + 2.5$$

A. $t = 0.25$

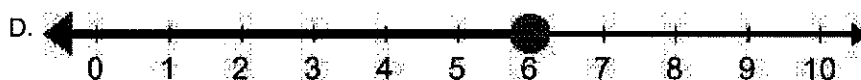
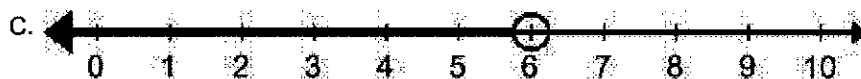
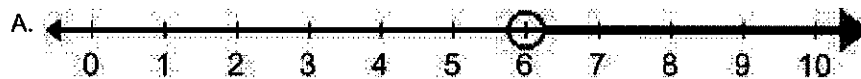
B. $t = 0.75$

C. $t = 1.25$

D. $t = 1.75$

23. Which number line represents the solution to the inequality below?

$$x > 6$$



24. Given a set of numbers {6, 9, 12, 15}, which of the following describes how to find the values that make the inequality true?

$$\frac{1}{3}x < 12$$

- A. Multiply each value by 3 and find the products that are greater than 12.
 B. Multiply each value by 3 and find the products that are less than 12.
 C. Divide each value by 3 and find the quotients that are less than 12.
 D. Divide each value by 3 and find the quotients that are greater than 12.

25. The height, h , of a triangle is greater than 12 centimeters. Which inequality represents this scenario?

A. $h \geq 12$

B. $h \leq 12$

C. $h < 12$

D. $h > 12$

*Below is a list of websites to use for review summer math review with tutorials, examples and sample questions. Log on and **LEARN!***

- **Khan Academy** www.khanacademy.org/
With a library of over 3000 videos covering hundreds of skills to practice, Sal Khan does an excellent job of explaining math problems on multiple levels.
- **AAA Math & Purple Math**
www.aaamath.com/ & www.purplemath.com/
These two sites feature comprehensive sets of interactive mathematics lessons. Practice is available on most topics, which allows for thorough mastery of the concepts.
- **Cool Math 4 Kids**
www.coolmath.com/
This fully interactive site and allows the user to sharpen basic math skills, play games and explore new math concepts. And it's not just fun and games! There are lessons, printable materials, and a math dictionary that extend into high school material.
- **Math is Fun**
www.mathsisfun.com/
Lessons, animations and explanations on just about any middle school and high school math topic you could need!
- **FunBrain**
www.funbrain.com/
FunBrain is a site with online educational games for kids of all ages. (math, grammar, science, spelling, and history)
- **Math Playground - Online Math Games that Give your Brain a Workout** www.mathplayground.com/
Action packed site with fun and challenging online math games.
- **Sumdog**
www.sumdog.com/
Get in on the competition!
- **Figure This**
www.figurethis.org/
A problem-solving based website that encourages family involvement to solve some of life's biggest mysteries.
- **Mash Up Math**
www.mashupmath.com/
Wonderful resource for standards-based math video lessons! Students love the presentation – it is fast, fun and intriguing.

We got an app for that...

Give some of these apps a try. Some are designed to help you learn specific math skills while other are just plain fun (math video games). See what you think.....

- Algebra Champ
- BrainPop
- 5 Dice: Order of Operations Game
- 24 Game (this is fun!)
- Fast Facts Addition, Subtraction
- Fast Fact Multiplication, Division
- Graphing Calculator (resource only)
- Khan Archiver
- Kakooma
- Learn Zillion
- Pocket Algebra
- Rocket Math
- Sushi Monster
- Shuttle Mission Math
- Your Teacher