America's School of Heroes
Middle School 137
109-15 98th Street, Ozone Park, N.Y. 11417
Tel: 1-718-659-0471   Fax: 1-718-659-4594
Laura Mastrogiovanni, Principal
Assistant Principals:
Mark A. Main • Elizabeth Orsini-Fox • Michael Potwardski • Pamela Trincado • Michael Troy • Zoanne Wilkins

Middle School 137's Math Summer Packet

Dear Students, Parents and Guardians,

Thank you for another successful year here at Middle School 137! In efforts to better prepare you for the 8th grade, we have attached your assignment for Math, which must be completed over the summer break.

Your work must be shown and if you need additional space please use a separate piece of paper.

This completed packet must be brought with you on the first day of school. The full packet is also available on our school website http://heroesofms137.org for you to print out. Your new math and ela teacher will be collecting and grading your work.

We wish you a very exciting summer and look forward to your return at MS 137 on Thursday, September 5th!

Sincerely,
Ms. Wilkins, A.P.

Student Name: _____   *Class:*_____

Parent/Guardian Signature: _____

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Incoming 8th Grade Summer Packet 2019

1. Which value of x makes the equation true?

$$3x - 7 = 20$$

A 3   C 9

B 4.33   D 81

2. What is $8x - 7 + 12x$ after being simplified?

A 13x   C 20x - 7

B -4x + 7   D 827x

3. Clara goes miniature golfing. She pays $7.50 for an admission ticket and $6.25 for each round she golfs. The total amount Clara pays for admission and the number of rounds she golfs is $26.25. Which equation can be used to determine the number of rounds, *x*, that Clara golfs?

A 6.25 x + 7.50 = 26.25

B 6.25x - 7.50 = 26.25

C 7.50x + 6.25 = 26.25

D 7.50x - 6.25 = 26.25

4. Joseph's lunch at a restaurant costs $13.00, without tax. He leaves the waiter a tip of 17% of the cost of the lunch, without tax. What is the total cost of the lunch, including the tip, without tax?

A $2.21   C $13.17

B $10.79   D $15.21

5. Which of the following inequalities has the graphed solution below?
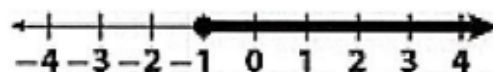
A x + 1 ≥ 0   C x + 1 ≤ 0

B x - 1 ≥ 0   D x - 1 ≤ 0

6. Annabelle's total pay varies directly with the number of hours she works. If she works 4 hours, she earns $100. How much does Annabelle earn if she works 6 hours?

A $90   C $150

B $120   D $300

7. From 12:00 midnight to 6:00am, the temperature decreased by 12^0C. If the original temperature was 12^0C, which expression can be used to represent this situation?

A 12 - 12   C 12 - (-12)

B 12 + 12   D -12 + (-12)

8. Which equation shows the relationship in the table below?

x	5	8	9	11
y	10	16	18	22

A $y = 2x$ C $y = 2x + 1$

B $y = 3x$ D $y = 3x + 3$

9. The regular price of an item at a store is p dollars. The item is on sale for 20% off the regular price. Some of the expressions shown below represent the sale price, in dollars, of the item.

Expression A: $0.2p$
Expression B: $0.8p$
Expression C: $1 - 0.2p$
Expression D: $p - 0.2p$

Which two expressions each represent the sale price of the item?

A   Expression A and Expression E
B   Expression B and Expression C
C   Expression B and Expression D
D   Expression C and Expression D

10. Manny goes bowling

- He has $25.00 to spend.
- He spends $4.25 to rent shoes.
- He spends $2.50 for each game he bowls.

Which inequality can Manny use to determine, x, the greatest number of games he can bowl?

A $2.5 + 4.25x \geq 25$
B $4.25 + 2.5x \geq 25$
C $2.5 + 4.25x \leq 25$
D $4.25 + 2.5x \leq 25$

11. Ben's Bikes charges $15.50 per hour to rent a bicycle and helmet. Cathie's Bike Shop charges $9.25 per hour for the bike and a flat fee of $12.50 for the helmet rental. For what number of hours are the total charges at both shops the same?

A   1 h   B   2 h   C   3 h   D   4 h

12. Tania analyzed the relationship between student test scores and the number of hours studied. She calculated the trend line to be $y = 6.8x + 60$, where x is the number of hours studied and y is the score. Which is closest to the score for a student who studied 3 hours?

A   80   C   90
B   85   D   95

13. Which of the following is equivalent to
$$6(2y - 4) + p$$
A $p + 12y - 24$ C $p - 6(2y - 4)$
B $6y + p - 24$ D $24 + 12y + p$

14. What is the greatest integer that satisfies the inequality $3x - 4 \, '' \, 8$?

A   4   C   6
B   5   D   7

15. Which of the following equations represents the linear relationship shown in the table below?

x	2	3	4	5
y	7	9	11	13

A $y = 2x - 3$
B $y = 2x + 3$
C $y = 3x - 2$
D $y = 3x + 2$

16. Which situation results in a final value of zero?

    A   the overall change in temperature when the temperature goes from -10^0F to 10^0F

    B   the total profit made when a person buys an item for $2.25 and then sells the item for $2.25

    C   the overall change in altitude of a hot air balloon after rising 21 kilometer from sea level

    D   the total distance a person travels when he bikes 3.1 miles to school and then bikes 3.1 miles back home
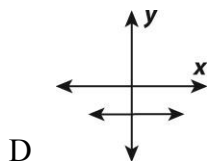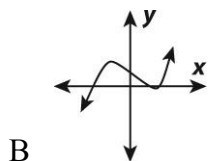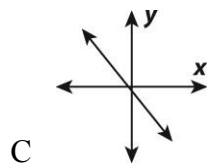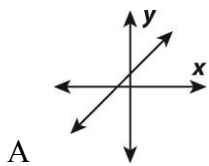
17. Which expression is equivalent to $14x - 21y$?

    A $7(2x - 21y)$

    B $7(2x - 3y)$

    C $7x(2 - 3y)$

    D $7y(2x - 3)$

18. What best describes the solutions of
$$-2 > 5x - 37$$

A   All real numbers greater than 7
B   All real numbers greater than 6
C   All real numbers less than 7
D   All real numbers less than 6

19. Which of the following graphs does **not** show a linear relationship?

20. What value will make the equation true?
$$-2.1 - \underline{\ ?\ } = -1.5$$

A   3.6
B   0.6
C   -0.6
D   -3.6

21.   Ms. Hernandez has $100 to spend on parking and admission to the zoo. The parking will cost $7, and the admission tickets will cost $15.50 per person, including tax. Write and solve an equation that can be used to determine the number of people that she can bring to the zoo, including herself. *Show your work.*

Answer_____ people

Extended-Response: 3 Point Question

22. Omar and Caleb each had a repair made on their cars. The initial cost of each repair is $1,000. Omar and Caleb each have two coupons. Each of them uses both of his coupons toward the cost of the repair. One coupon is for $80 off the repair cost. The other coupon is for 15% off the repair cost. Omar and Caleb use their coupons in a different order, as shown below.

- Omar uses the $80 off the repair cost coupon first. He then uses the 15% off the repair cost coupon on the remaining balance.

- Caleb uses the 15% off the repair cost coupon first. He then uses the $80 off the repair cost coupon on the remaining balance.

Who paid the least amount of money for his car repair and how much less did he pay?

Show your work.

Answer: _____ **paid** _____ **$ less**