America's School of Heroes

Middle School 137

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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 the work space on the right side of the packet.

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://www.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 to MS 137 in September.

Sincerely,

Mrs. Reilly, A.P.

Student Name: _____ ***Class:***_____

Parent/Guardian Signature: _____

Middle School 137 Summer Packet - Incoming 8th Grade Algebra

1.

Five of Teddy's six cousins can do 15 push-ups in one set. Which decimal is equivalent to the fraction of Teddy's cousins who can do 15 push-ups?

a) 0.4 b) 0.56

c) $0.8\overline{3}$ d) $0.\overline{83}$

2.

During the first round of a game, Silas scored 15 points. He loses 30 points during the second round and gains 10 points during his final turn. What is Silas' final score?

a) -55 b) -25

c) -5 d) 55

3.

Simplify the expression $3(7x) – 2(4 – x)$

a) $13 – 2x$ b) $13 + 2x$

c) $23x - 8$ d) $20x - 8$

4.

Three boys and four girls enter a contest at the local movie theater. A randomly chosen winner will be awarded a free movie ticket, a collectible poster, or free popcorn. What is the probability that a girl will win free popcorn?

a) $\frac{3}{21}$ b) $\frac{4}{21}$

c) $\frac{3}{7}$ d) $\frac{4}{7}$

5.

Ezra is saving money to buy a snowboard that costs $225. He already has $45 and can earn the rest by walking ten dogs. If d represents how much he earns for walking each dog, which of the following equations can be solved to find how much Ezra is paid for walking each dog?

a) $225 = 45d – 10$ b) $225 – 45 = 10d$

c) $225 + 45 = 10d$ d) $45 = 225 – d$

Work Space:

6.

Rina receives a $70 gift card to use at the Bootery. She buys a pair of boots for $36 and 8 pairs of socks. She does not use the entire amount on the gift card. Which inequality can be used to find the price in dollars of each pair of socks?

a) $70 + 8s < 36$ b) $36 + 8s < 70$

c) $70 - 8s < 36$ d) $36 - 8s < 70$

7. When solving the equation $4x + 2 - 16 = 0$, Laura wrote $4x + 2 = 16$ as her first step. Which property justifies Laura's first step?

1) distributive property of multiplication over addition

2) commutative property of addition

3) multiplication property of equality

4) addition property of equality

8. While solving the equation $4(x + 2) = 28$, Becca wrote $4x + 8 = 28$. Which property did she use?

1) distributive

2) commutative

3) associative

4) identity

9.

The solution to $\frac{4(x-5)}{3} + 2 = 14$ is

1) 15
2) 14
3) 6
4) 4

10.

What is the solution of $3(2m - 1) \leq 4m + 7$?

1) $m \leq 5$
2) $m \geq 5$
3) $m \leq 4$
4) $m \geq 4$

Work Space:

11.

What is the solution to $2+3(2a+1)=3(a+2)$?

1) $\frac{1}{7}$

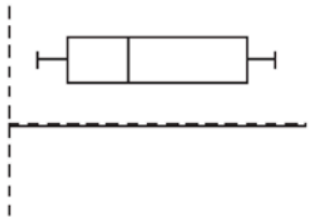
2) $\frac{1}{3}$

3) $-\frac{3}{7}$

4) $-\frac{1}{3}$

12.

The accompanying diagram is an example of which type of graph?



1) bar graph
2) stem-and-leaf plot
3) histogram
4) box-and-whisker plot

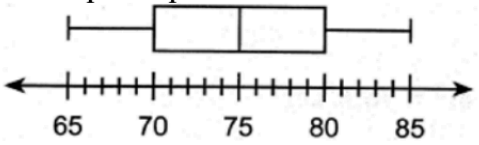
13.

The heights, in inches, of eight football players are given below.

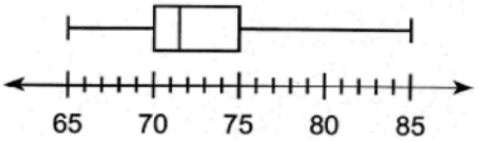
76, 70, 72, 70, 69, 71, 78, 74

Which box plot represents these data?

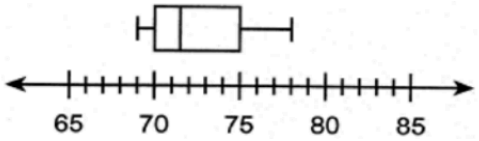
1)



2)



3)



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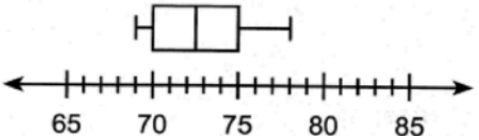

Work Space:

14.

The graph of the line passing through the points $(6, 7)$ and $(4, 2)$ has a slope of

A. $\frac{2}{5}$ B. $-\frac{5}{2}$ C. $\frac{5}{2}$ D. $-\frac{1}{2}$

15.

The slope of the line determined by the points $(-3, 2)$ and $(2, -3)$ is

A. 1 B. -1

C. zero D. undefined

16.

What is the slope of the line whose equation is $y = -3x + 6$?

A. $-\frac{1}{2}$ B. 2 C. -3 D. 6

17.

Which expression could be used to change 8 kilometers per hour to meters per minute?

A. $\frac{8\,\text{km}}{\text{hr}} \cdot \frac{\text{km}}{1000\,\text{m}} \cdot \frac{\text{hr}}{60\,\text{min}}$

B. $\frac{8\,\text{km}}{\text{hr}} \cdot \frac{1000\,\text{m}}{\text{km}} \cdot \frac{60\,\text{min}}{\text{hr}}$

C. $\frac{8\,\text{km}}{\text{hr}} \cdot \frac{1000\,\text{m}}{\text{km}} \cdot \frac{\text{hr}}{60\,\text{min}}$

D. $\frac{8\,\text{km}}{\text{hr}} \cdot \frac{\text{km}}{1000\,\text{m}} \cdot \frac{60\,\text{min}}{\text{hr}}$

Work Space:

Work Space:

18.

What is the slope of the line whose equation is $y + 2x = 4$?

A. $\frac{1}{2}$ B. 2 C. -2 D. 4

19.

During lunch, a sandwich shop owner sold 2 types of sandwiches: turkey and roast beef. Each sandwich cost \$4.99 and the total sales from all of the sandwiches sold was \$219.56. There were 25 turkey sandwiches sold. How many roast beef sandwiches were sold?

Show your work

20.

Diane is planning a party at a trampoline park. It will cost \$55.00 to rent the park, plus an additional \$8.00 per guest. She wants to spend less than \$100.00 on the party. Write and solve an inequality to determine the maximum number of guests, g, that can be invited when spending less than a total of \$100.00.

Show your work.