

Grade 6 Winter Packet 2017 – Show ALL work on separate sheet of paper.

1.) Jordan has 3 blue marbles and 8 red marbles. What is the ratio of blue marbles to red marbles? **MAFS6RP11**

- A. 3:3 B. 3:5 C. 3:8 D. 3:11

2.) Jordan has a jar of blue, red, and yellow marbles, as shown. Complete the table to show the ratio of blue marbles to yellow marbles. **MAFS6RP11**



Ratio of Blue to Yellow		
	to	

3.) A jar of marbles is shown. Complete the table to show the ratios. **MAFS6RP11**



Ratios of Marbles		
Red: Green		
Blue: Total Marbles		

4.) Which statement describes a unit rate? **MAFS6RP12**

- A. Sara ate 1 cookie.
 B. Sara is driving 16 miles.
 C. Sara is driving 30 miles per 1 hour.
 D. Sara ate 3 crackers and 1 apple.

5.) **Find the unit rate to complete the ratio table.** 7 pairs of pants cost \$175. What is the cost of 13 pairs of pants?
MAFS6RP12

Pants			
Cost			

6.) Tom knows that in his school 10 out of every 85 students are left-handed. There are 391 students in Tom’s school. How many students in Tom’s school are left-handed? **MAFS6RP13**

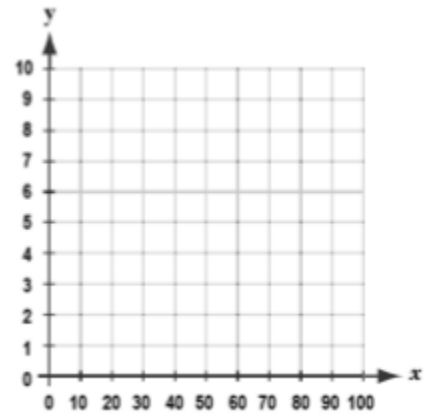
7.) The standard length of film on a film reel is 300 meters. On the first day of shooting a movie, a director uses 30% of the film on one reel. How long is the strip of film that was used? **MAFS6RP13**

8.) A paint mixture uses a specific blue to green ratio. Complete the table using the ratio given. **MAFS6RP13**

Paint Mixture	
Blue Paint	Green Paint
2	5
4	
6	

9.) A table of equivalent ratios is shown. Use the Add Point tool to plot these points on the coordinate grid. **MAFSREP13**

Ratios	
20	2
40	4
60	6
80	8



10.) An expression is shown. What is the value of the expression? **MAFS6NS11**

$$4/5 \div 8/7$$

11.) An expression is shown. What is the value of the expression? **MAFS6NS11**

$$5/9 \div 2/3$$

12.) An expression is shown. What is the value of the expression? **MAFS6NS11**

$$2 \frac{1}{4} \div 1 \frac{2}{5}$$

13.) An expression is shown. What is the value of the expression? **MAFS6NS11**

$$3 \frac{3}{4} \div 1 \frac{1}{2}$$

14.) An expression is shown. What is the value of the expression? **MAFS6NS22**

$$2925 \div 15$$

15.) An expression is shown. What is the value of the expression? **MAFS6NS22**

$$3297 \div 12$$

16.) An expression is shown. What is the value of the expression? **MAFS6NS23**

$$23.84 \times 2.6$$

- A. 619.84 B. 61.984 C. 6.1984 D. 6198.4

17.) An expression is shown. What is the value of the expression? **MAFS6NS23**

$$197.56 \times 3.12$$

- A. 616.3872 B. 61.63872 C. 6163.872 D. 616.8327

18.) An expression is shown. What is the value of the expression? **MAFS6NS23**

$$2312.2 + 3.4$$

- A. 231.56 B. 23.156 C. 2315.6 D. 2.3156

19.) An expression is shown. What is the value of the expression? **MAFS6NS23**

$$245.23 - 16.7$$

- A. 2285.3 B. 22.853 C. 228.53 D. 2.2853

20.) What is the greatest common factor of 15 and 20? **MAFS6NS24**

- A. 10 B. 60 C. 15 D. 5

21.) What is the least common multiple of 7 and 12? **MAFS6NS24**

- A. 2 B. 35 C. 56 D. 84

22.) Which expression is equivalent to $8+20$? **MAFS6NS24**

- A. $4(4+20)$ B. $4(2+5)$ C. $2(2+10)$ D. $2(6+18)$

23.) An equation is shown. What factor is missing from the equation? **MAFS6NS24**

$$30+12 = \underline{\quad ? \quad} (5 + 2)$$

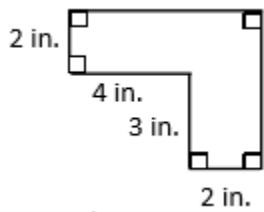
24.) Which value is equivalent to the expression 4^5 ? **MAFS6EE11**

- A. 9 B. 20 C. 625 D. 1024

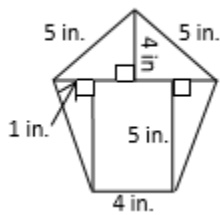
25.) Select all expressions that are equivalent to $8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$. **MAFS6EE11**

- A. 8^5 B. $8^1 \times 8^5$ C. $8^2 \times 8^3$ D. $(2^3)^5$ E. $5(2^3)$

26.) A shape is shown. What is the area, in square inches, of the shape? **MAFS6G11**

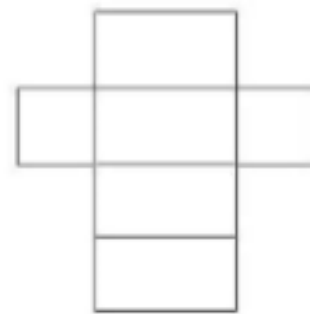
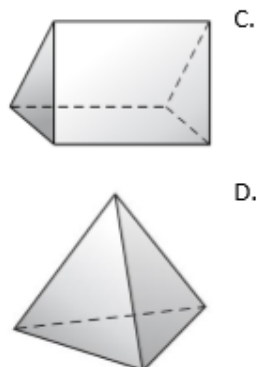
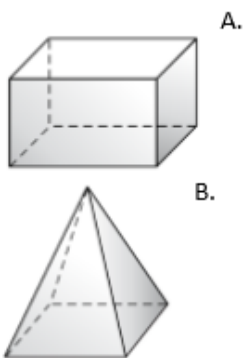


27.) A pentagon is shown. What is the area, in square inches, of the pentagon? **MAFS6G11**



28.) A right rectangular prism has a length of $4 \frac{1}{2}$ feet, a width of $6 \frac{1}{2}$ feet, and a height of 8 feet. What is the volume of the prism. **MAFS6G12**

29.) A net is shown. Which three-dimensional figure is represented by the net? **MAFS6G14**



30.) The surface area of a rectangular prism is 115 square inches. The net of the prism is shown. What are possible dimensions of the prism? **MAFS6G14**

A. 2, 4, $6\frac{1}{2}$

B. 2, 4, $8\frac{1}{4}$

C. 3, 6, $6\frac{1}{2}$

D. 3, 6, $8\frac{1}{4}$

