

## Assessment Reference Sheet

### Grade 8

1 inch = 2.54 centimeters  
 1 meter = 39.37 inches  
 1 mile = 5280 feet  
 1 mile = 1760 yards  
 1 mile = 1.609 kilometers

1 kilometer = 0.62 mile  
 1 pound = 16 ounces  
 1 pound = 0.454 kilograms  
 1 kilogram = 2.2 pounds  
 1 ton = 2000 pounds

1 cup = 8 fluid ounces  
 1 pint = 2 cups  
 1 quart = 2 pints  
 1 gallon = 4 quarts  
 1 gallon = 3.785 liters  
 1 liter = 0.264 gallons  
 1 liter = 1000 cubic centimeters

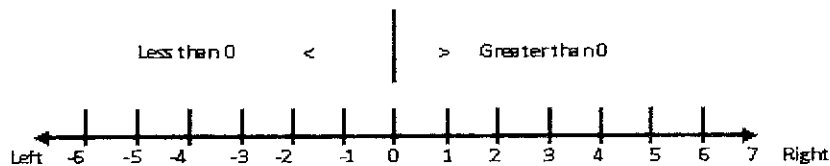
Triangle	$A = \frac{1}{2}bh$
Parallelogram	$A = bh$
Circle	$A = \pi r^2$
Circle	$C = \pi d$ or $C = 2\pi r$
General Prisms	$V = Bh$
Cylinder	$V = \pi r^2 h$
Sphere	$V = \frac{4}{3}\pi r^3$
Cone	$V = \frac{1}{3}\pi r^2 h$
Pythagorean Theorem	$a^2 + b^2 = c^2$

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Compare the numbers mentally on a number line and select the correct statement out of the following statements:

- A. 4 is greater than 6
- B. -3 is greater than -5
- C. 0 is less than -2
- D. -3 is greater than +2



2. Simplify:  $[-15(-1.5)] + [(-2.5) \times 1.25]$

- A) -19.375
- B) 19.375
- C) -25.625
- D) 25.625



3. Simplify :  $\sqrt{10} \times \sqrt{15} =$

- A)  $5\sqrt{6}$
- B)  $6\sqrt{5}$
- C) 5
- D)  $\sqrt{30}$

4. Select an equivalent expression for:  $12m - 6n + 2$

- A)  $6m - 3n + 2$
- B)  $12m + 6n - 2$
- C)  $6m - 3n + 1$
- D)  $m - n + 1$



Name \_\_\_\_\_

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5. Which inequality shows these numbers in order from least to greatest?

67 42 65 62

- A.  $42 < 62 < 65 < 67$
- B.  $62 < 65 < 67 < 42$
- C.  $62 < 67 < 65 < 42$
- D.  $42 < 65 < 62 < 67$

6. Which of the following is an equivalent fraction to  $-18/96$ ?

- A)  $-96/18$
- B)  $-1/16$
- C)  $-3/16$
- D)  $3/16$

7. Your mom gave you a lovely bicycle on your last birthday. The original price of this bicycle was \$ 150. The shopkeeper offered a special discount of 20%. What was amount paid by your mom?

- A) \$130
- B) \$135
- C) \$120
- D) \$150

8. You buy a television for \$550. That price included a 10% sales tax. What is price without sales tax?

- A) \$500
- B) \$605
- C) \$55
- D) \$550



Name \_\_\_\_\_

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9.  $3 \times 0.3 \times 0.03 \times 0.003 \times 30 = ?$

- A) 0.0000243                      B) 0.000243  
C) 0.00243                         D) 0.0243

10. In a test of 4 subjects, Mike gets 96, 60 and 55 in three subjects. If his average (arithmetic mean) mark for all four subjects is 74, then the marks in the 4<sup>th</sup> subject must be:

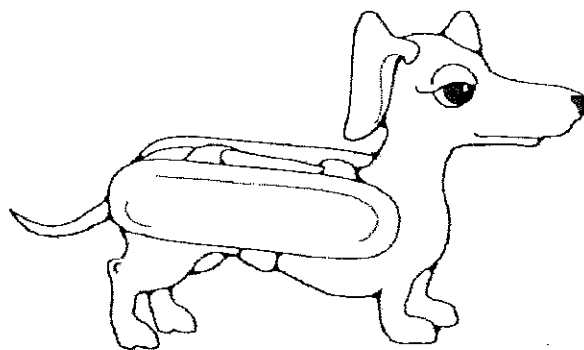
- A. 74    B. 85    C. 88    D. 82

11. The cost of a toy car is \$20 less than 2 times the cost of a toy train. If the cost of toy car is \$100, what is the cost of toy train?

- A. \$40  
B. \$50  
C. \$60  
D. \$80

12. Marvin makes \$5 for every hot dog he sells. The hot dog costs him \$2 to make. Which expression below would allow you to determine the amount Marvin makes selling 30 hot dogs?

- a.  $5 + 2x - 30$   
b.  $5(30) - 2(30)$   
c.  $10 + 30x$   
d.  $7 \times 30$



(Not these hot dogs!)



Name \_\_\_\_\_

Date \_\_\_\_\_

13. The radius of a circle is 12 cm. What is the area? (Use approximation.)

- A) 425                      B) 352  
C) 452                      D) 442

14. The mean of seven numbers is 12.0. When one new number is added, the average of eight numbers becomes 12.5. What is the new number?

- A) 12.0                      B) 12.5  
C) 16.0                      D) 16.5

15. An ordinary single die is thrown. Find the probability that an even number is the outcome.

- A)  $1/6$                       B)  $1/3$   
C)  $1/2$                       D)  $1/4$

16. In how many different ways can the letters of the word "CHINA" be arranged?

- A) 25                          B) 60  
C) 120                        D) 180



Name \_\_\_\_\_

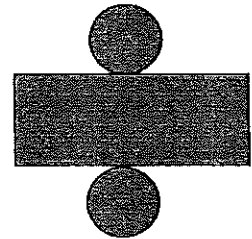
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17. A card is picked up at random from a pack of 52 cards. Find the probability that it is a king or queen.

- A)  $\frac{1}{13}$       B)  $\frac{2}{13}$       C)  $\frac{1}{2}$       D)  $\frac{1}{23}$

18. What shape can you make with this net?

- A) Cone      B) Rectangle  
C) Ball      D) Cylinder



19. A table top is made up of circular glass. What is the circumference of the table if it has a radius of 21 cm?

- A) 66 cm      B) 126 cm      C) 132 cm      D) 264 cm

20. You have a rectangular box with the dimensions of 4 feet x 2 feet x 1 foot. You have to get it painted red. The painting will cost \$2.50 per square foot. How much will it cost you?

- A) \$70      B) \$35      C) \$30      D) \$20

