▶ PRACTICE EXERCISE

1. A strip of linoleum 13 yards 5 feet 1 inch is to be cut into three equal parts. The length of each part will be
(A) 4 yards 4 feet (B) 4 yards $4\frac{1}{3}$ feet
(C) 4 yards 2 feet $8\frac{1}{3}$ inches (D) 4 yards 1 foot
(E) 4 yards $5\frac{1}{3}$ feet

2. What is the average height of three boys if one boy is $x$ inches and the other boys are each $y$ inches tall?
(A) $\frac{2xy}{3}$ (B) $\frac{x+2y}{3}$ (C) $\frac{x+y}{3}$ (D) $x+\frac{y}{3}$
(E) $\frac{2}{3}(x+y)$

3. What number must be added to 8, 18, and 26 to attain an average of exactly 18?
(A) 2 (B) 17.5 (C) 18 (D) 20 (E) 34

4. The average of the numbers represented by $z-8$ and $3z+2$ is
(A) $11z+3$ (B) $4z-6$ (C) $\frac{11z+3}{2}$
(D) $2z-3$ (E) $2z-5$

5. The average of $A$ and another number is $B$. The other number is
(A) $\frac{AB}{2}$ (B) $2B-A$ (C) $2A-B$ (D) $A-B$
(E) $\frac{A+B}{2}$

6. The average of two numbers is $XY$. If one number is equal to $X$, the other number is equal to
(A) $Y$ (B) $2Y$ (C) $XY-X$ (D) $2XY-X$
(E) $XY-2X$

7. A student who strives to attain an average of 80% has the following grades in a certain subject: 70, 74, 81, and 85. What grade must he get in the next test to achieve his goal?
(A) 85 (B) 87 (C) 89 (D) 90
(E) more than 90

8. The average closing price of the five most active stocks was \$42. The average closing price of the first four stocks on the most active list was \$37. The closing price of the stock that was fifth on the most active list was
(A) \$37 (B) \$42 (C) \$47 (D) \$60 (E) \$62

9. If $b$ boys each have $m$ marbles, and $g$ girls each have $n$ marbles, what is the average number of marbles per child?
(A) $m+n$ (B) $\frac{m+n}{2}$ (C) $\frac{m+n}{b+g}$
(D) $\frac{bm+gn}{m+n}$ (E) $\frac{bm+gn}{b+g}$

10. What was the grade a student received on his first examination, if the grades on his other examinations were 80%, 90%, and 95%, and his average on the four was 75%?
(A) $13\frac{1}{3}$ (B) 33 (C) 34 (D) 35 (E) 36

11. During a closeout sale 30 suits are sold at \$60 each. The price is then reduced to \$50 and 20 suits are sold. At what average price must the remaining 10 suits be sold in order to attain an average of \$55 for the 60 suits?
(A) \$50.00 (B) \$52.50 (C) \$55.00
(D) \$57.50 (E) \$60.00

12. The average of $n$ numbers is $a$. If $x$ is subtracted from each number, the average will be
(A) $\frac{ax}{n}$ (B) $\frac{an}{x}$ (C) $an-x$ (D) $n-x$
(E) $a-x$

13. If the average of the ages of three men is 44 and no one of them is less than 42 years old, what is the maximum age (in years) of any one man?
(A) 44 (B) 46 (C) 48 (D) 49 (E) 50

14. What fraction must be subtracted from the sum of $\frac{1}{2}+\frac{1}{3}$ in order to have an average of $\frac{1}{6}$?
(A) $-\frac{1}{3}$ (B) $\frac{1}{3}$ (C) $\frac{1}{2}$ (D) $-\frac{1}{2}$ (E) $\frac{2}{3}$

15. Which of the following must be added to the sum of $2d$ and $4d$ in order to have an average of $3d$?
(A) $-3d$ (B) $+3d$ (C) $9d$ (D) $-9d$
(E) none of these

16. The average of three numbers is $x$. If one number is 5, then the sum of the other two numbers is
(A) $3x$ (B) $\frac{3x}{2}$ (C) $3x-5$ (D) 5
(E) $\frac{x-5}{2}$

17. A student attends Central High School for two terms and earns an average of 80%. He then attends Circle High School for five terms and earns an average of 85%. His average for the seven terms would be
(A) 82.5% (B) 82.6% (C) 83.4%
(D) 83.57% (E) 84%

18. If 5 lbs. of nuts worth 60 cents a pound are mixed with 6 lbs. of nuts worth 50 cents a pound, the value (in cents) of each pound of mixture is
(A) 54.5 (B) 55 (C) 55.5 (D) 56 (E) 56.5

19. The average of two numbers is $V$. If the smaller number is $v$, then the larger number is
(A) $V-v$ (B) $v-V$ (C) $2v-V$
(D) $2V-v$ (E) $\frac{V-2v}{2}$

20. Three members of a track team have weights that range from 110 to 135 pounds. Which of the following *cannot* possibly be the average of the three trackmen?
(A) 117 (B) 119 (C) 122 (D) 125 (E) 126

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| *1.* C | *3.* D | *5.* B | *7.* D | *9.* E | *11.* A | *13.* C | *15.* B | *17.* D | *19.* D |
| *2.* B | *4.* D | *6.* D | *8.* E | *10.* D | *12.* E | *14.* B | *16.* C | *18.* A | *20.* A |