1. Simplify: $2+y+y+y+y+y+3$ ?
2. Which of the following equations is an example of the distributive property?
A. $r(s+t)=r s+r t$
B. $a(b c)=(a b) c$
C. $x+(y+z)=(x+y)+z$
D. $b(c+d)=b(d+c)$
3. Four students wrote expressions using the variable $t$ below. If $t$ represents a positive integer, whose expression has the greatest value?

| Student | Expression |
| :---: | :---: |
| Angelo | $-5(12 t+9)$ |
| Brian | $2(6 t-8)$ |
| Chrissy | $-6(-2 t+18)$ |
| Devon | $-4(-3 t-2)$ |

A. Angelo
B. Brian
C. Chrissy
D. Devon
4. Simplify: $24 m-135 m \div(-3)^{3}$
5. Dennis is going to purchase $x$ tickets to a school play at a cost of $\$ 8.00$ each. He remembers a coupon he was given that will reduce the total ticket cost by $\$ 0.50$. Since Dennis is a member of the school faculty, the total cost of the tickets after the coupon reduction will be reduced by an additional $25 \%$. The total amount, in dollars, that Dennis will spend to purchase $x$ tickets, with the given reductions, can be represented by the expression below. $\left(8 x-\frac{1}{2}\right)-\frac{1}{4}\left(8 x-\frac{1}{2}\right)$
Which of the following is an equivalent expression?
A. $6 x$
B. $6 x-\frac{1}{4}$
C. $6 x-\frac{3}{8}$
D. $6 x-\frac{5}{8}$
6. Gina bought 4 bags of grapes that weighed 2.29 pounds each. The grapes were priced at $\$ 2.50$ per pound. The expression below represents the total cost of the bags of grapes Gina bought, in dollars.
$(2.29 \times 2.50) \times 4$
Which expression below is also equivalent to the total cost of the grapes?
A. $(2.29+4) \times 2.50$
B. $4 \times(2.50+2.29)$
C. $(2.29 \times 4)+2.50$
D. $2.29 \times(2.50 \times 4)$
7. What is $\left|-\frac{2}{3}\right|+\frac{5}{6}+\left(-\frac{1}{4}\right)$ in simplest form?
8. Fred used a number line to find the value of $(-3)+(-5)$. Which of these number lines did he use?
A.

C.

B.

D.

9. What is the value of the expression $-2 \frac{1}{2}+-3 \frac{1}{3}$
10. Using the commutative property, how can $147+(78+52)$ be rewritten?
A. $(147 \times 78)+(147 \times 52)$
B. $(78+52)+147$
C. $(147+78)+52$
D. $147+130$
11. Volunteers planted 2,000 flowers at a park. Each flower cost $\$ 1.65$. How much did all the flowers cost?
12. In order to get a product of 1 , Julio would need to multiply any non-zero number by its
A. opposite.
B. reciprocal.
C. square root.
D. absolute value.
13. Which expression is equal to -4 ?
A. $-\left(-\frac{20}{5}\right)$
B. $-\left(\frac{-12}{-3}\right)$
C. $\frac{-8}{-2}$
D. $\frac{16}{4}$
14. A carpenter wants to cut a 24 -foot piece of wood into sections measuring $3 \frac{1}{8}$ feet. How many complete sections can be cut?
A. 9
B. 8
C. 7
D. 6
15. $\frac{3}{5} \times \frac{1}{6}=$
16. The 2005 U.S. Girls Public High School swimming record in the 50 yard freestyle is 22.75 seconds. Kara's best time in this event is 24.38 . What is the difference between Kara's best time and the 2005 record time?
17. The record low temperature for the year was 15 degrees below zero. The record high temperature for the year was 87 degrees above zero. What is the difference in these temperatures?
A. -150
B. 720
C. $102{ }^{\circ}$
D. 1170
18. What solution will make this a true statement?
$-2-5=\square$
19. The Tigers football team gained 7 yards, lost 8 yards, and then lost 7 more yards. What is the total result of these three plays?
A. a gain of 8 yards
B. a loss of 8 yards
C. a gain of 22 yards
D. a loss of 22 yards
20. What is the value of the expression $3+(5+7) \times 2-8 \div 4$ ?

