## Solving Equations

1. Evaluate $2+x-2 \cdot 8$ for $x=9$
A -68
C -5
B 58
D 72
2. Solve $44=14-2 \mathrm{a}$
A $a=-29$
C $a=15$
B $a=29$
D $a=-15$
3. Solve $-14+s=32$
A $\mathrm{s}=46$
C $\mathrm{s}=-46$
B $\mathrm{s}=18$
D $\mathrm{s}=-18$
4. Solve $\frac{d}{3}-9=-12$.
A -9
C 6
B -3
D 15
5. Solve $-\frac{3}{7} h=6$.
A - 14
C $2 \frac{4}{7}$
B $-2 \frac{4}{7}$
D 14
6. Solve $a+6=3 a-8$.

A -1
B 2
C 7
D 14
7. Solve $-a+7=2 a-8$.
A -3
c 5
B $-\frac{1}{3}$
D 15
8. Solve $b-2-4 b=-7-4 b$
A $b=-5$
C $b=1 \frac{2}{7}$
B $b=-9$
D $b=\frac{5}{7}$
9. Solve $43 a+10-26 a=27$
A $\mathrm{a}=1$
C $a=-17$
B $\mathrm{a}=-1$
D $\mathrm{a}=17$
10. Solve $50 q-43=52 q-81$
A $q=-19$
C $q=-38$
B $q=38$
D $q=19$
11. Solve $7(z+2)-3 z=44$.
A $7 \frac{1}{3}$
C $10 \frac{1}{2}$
B $7 \frac{1}{2}$
D $14 \frac{1}{2}$
12. Solve $2(z+1)=16$.
A 4
C 7.5
B 7
D 9
13. Solve $-(a-9)=3 a+17$.
A -8
c -2
B -4
D 6.5
14. Solve $6(z+3)-9=27$.
A 0
C 5.5
B 3
D 10.5
15. Solve $|x+5|=12$
A $x=7$
C $x=7$ or $x=-17$
B $x=12$
D $x=-7$ or $x=12$
16. Solve $7|x-6|=49$
A $x=55$
C $x=55$ or $x=-43$
B $x=13$
D $x=13$ or $x=-1$
17. Solve $|6 x-9|+5=2$
A $x=1$
C No solution
B $x=-2$
D $x=-2$ or $x=-1$
18. Solve $y+w=x$ for $y$.

A $y=w-x$
B $y=x-w$
19. Solve $x y+7=n$ for $y$.

A $y=x n-7$
B $y=\frac{n-7}{x}$
C $y=x(n-7)$
D $y=\frac{1}{x}(n+7)$
20. Solve $V=I R$ for $R$.

A $R=\frac{V}{I}$
B $R=\frac{1}{V}$
21. Solve $A=\frac{1}{2} b h$ for $h$.

A $h=\frac{A}{2 b}$
B $h=\frac{b}{2 A}$
C $h=\frac{2 A}{b}$
D $h=A-\frac{1}{2} b$
22. Solve $P=2(I+w)$ for $l$.

F $\quad I=\frac{P}{2}+w$
G $I=\frac{P}{2}-w$
H $I=\frac{P-w}{2}$
$\mathbf{J} I=\frac{P+w}{2}$
23. If Debbie has $k$ pencils, which algebraic expression represents seven less than double the number of Debbie's pencils?
A. $\quad \mathbf{7 - 2 k}$
B. $\quad 2(7-k)$
C. $2 k-7$
D. $2(k-7)$
24. If y represents Jen's age, which algebraic expression represents one fourth of Jen's age less five?
A. $\frac{y-5}{4}$
B. $4 y-5$
C. $5-4 y$
D. $\frac{y}{4}-5$
25. Stacee wrote 14 letters to friends each month for $y$ months in a row. Write an expression to show how many total letters Stacee wrote.
A. $14-\mathrm{y}$
B. 14 y
C. $\quad 14+y$
D. $14 / \mathrm{y}$
26. Which equation represents the relationship "3 more than a number is $7^{\prime \prime}$ ?
A $n+7=3$
B $n+3=7$
C $3 n=7$
D $3-n=7$
27. Which equation represents the relationship " 3 less than a number is $-6^{\prime \prime}$ ?
A $n-3=-6$
C $3+n=-6$
B $3-n=-6$
D $n-6=3$

