Fill in the circle for the correct answer.
Show your work.

1. Dylan has 8 times as many football cards as baseball cards. Which equation compares Dylan's football and baseball cards?
(A) $f \times b=8$
(C) $f=8 b$
(B) $b=8+f$
(D) $f=8+b$
2. A truck driver delivers 245 gallons of milk to one store. He delivers 185 gallons of milk to a second store. Which equation shows how many gallons of milk the truck driver delivers in all?
(F) $245+185=g ; g=430$ gallons
(®1) $245-185=g ; g=60$ gallons
(G) $245+185=g ; g=420$ gallons
(®) $245-185=g ; g=50$ gallons
3. A box holds 112 cans of cat food. Which equation shows how many cans of cat food are in 8 full boxes?
(A) $8+112=c ; c=110$ cans
(C) $8 \times 112=c ; c=886$ cans
(B) $8+112=c ; c=120$ cans
(D) $8 \times 112=c ; c=896$ cans
4. There are 18 umbrellas at the beach shop. There are 3 times as many chairs as umbrellas. Which equation shows how many chairs are at the beach shop?
(F) $c=18 \div 3 ; c=6$ chairs
(H) $c=3+18 ; c=21$ chairs
(G) $c=18-3 ; c=15$ chairs
(1) $c=3 \times 18 ; c=54$ chairs
5. Gwen sold 2,412 movie tickets last weekend. That is 4 times the number of tickets sold on Wednesday.
Which equation shows the number of tickets sold on Wednesday?
(A) $4 t=2,412 ; t=603$ tickets
(C) $4+t=2,412 ; t=2,408$ tickets
(B) $4 t=2,412 ; t=630$ tickets
(D) $4+t=2,412 ; t=2,308$ tickets
6. Mr. Brady has $\$ 987$. He buys a DVD player for $\$ 171$ and some movies for $\$ 112$. Which equation shows how much money Mr. Brady has left?
$\bigodot 987+(171+112)=m ;$

$$
m=\$ 1,270
$$

(H) $987-(171-112)=m$;
$m=\$ 928$
(G) $987+(171-112)=m ;$
$m=\$ 1,046$
© $987-(171+112)=m ;$
$m=\$ 704$

## Solve for or $n$.

7. $(17+13) \div(15-9)=n$
(A) $n=4$
(B) $n=5$
(C) $n=6$
(D) $n=8$
8. $(16-7) \cdot 6=$ $\square$ - 6
(F) $=6$
(G) $=7$
$(1)=8$
(®) $\quad=9$

List all factor pairs for the number.
9. 31
(A) 0 and 30
10. 42
(F) 1 and 42; 6 and 7
(B) 1 and 31
(G) 1 and 42; 3 and 14; 6 and 7
(①) 1 and $42 ; 2$ and $21 ; 3$ and 14; 6 and 7
(6) 1 and 42; 2 and 21; 3 and 14;

4 and 10; 6 and 7
11. Which number is composite?
(A) 21
(B) 37
(C) 43
(D) 59
12. Which number is prime?
(F) 15
(G) 29
(H) 57
(1) 63
13. Which number is a multiple of 9 ?
(A) 32
(B) 49
(C) 56
(D) 63
14. Which number is a multiple of 6 ?
(F) 28
(G) 32
(H) 48
(®) 56

Use the rule to find the next 3 terms in the pattern.
15. $7,14,28,56, \ldots$

Rule: multiply by 2
(A) 102, 204, 408
(C) $122,244,488$
(B) $112,224,448$
(D) $132,264,528$
16. $50,85,120,155, \ldots$ Rule: add 35
(F) 190, 225, 260 © 180, 215, 250
(G) 190, 225, 250 ® 180, 215, 245
17. $3,9,27,81, \ldots$

Rule: multiply by 3
(A) 162, 324, 648
(B) 162; 486; 1,458
(C) $243,486,972$
(D) 243; 729; 2,187

## Describe the next term of the pattern.

18. 


(F) shaded triangle
( $(1)$ unshaded triangle
(G) shaded pentagon
(®) unshaded pentagon
19.

(A) 5 rows with 16 triangles
(C) 6 rows with 14 triangles
(B) 5 rows with 15
(D) 6 rows with 12 triangles
20. Two friends are planning a 116-mile canoe trip that will last 4 days. They want to travel the same number of miles each day. Which equation shows how many miles they will travel each day?
(F) $116 \div 4=m ; m=27$ miles
(H) $116 \times 4=m ; m=464$ miles
(G) $116 \div 4=m ; m=29$ miles
(ㅈ) $116 \times 4=m ; m=444$ miles
21. A website gets a large number of hits. Then it gets 1,060 more hits. The website gets 12,565 hits in all. Which equation can be used to show the hits the website had first?
(A) $h+1,060=12,565$
(C) $h-1,060=12,565$
(B) $h=1,060+12,565$
(D) $h=1,060-12,565$

## Use the picture graph for 22-23.

22. How many fewer points did Brett score in Game 1 than in Game 3?
© 36
(H) 16
(G) 30
(1) 8
23. What multiplication equation compares the number of points Brett scored in Game 2 and Game 4?
(A) $p \times 8=24 ; p=3$
(C) $p \times 4=24 ; p=6$
(B) $p \times 8=32 ; p=4$
(D) $p \times 4=32 ; p=8$
24. Zack bought 3 pads of drawing paper, 4 charcoal pencils, and 5 color pencils. The pads of drawing paper cost $\$ 8$ each. The charcoal pencils and color pencils cost $\$ 3$ each. Which equation shows the total cost of the art supplies?
(f) $3 \times 8+3 \times 4+5=c ; c=\$ 41$
© $3 \times 8+3 \times 4+5=c ; c=\$ 113$
(G) $3 \times 8+3 \times(4+5)=c ; c=\$ 51$
(®) $3 \times 8+3 \times(4+5)=c ; c=\$ 297$
25. A store has DVDs on sale. The store has 5 racks of cartoons with 13 in each rack. It has 3 racks of movies with 12 in each rack. There were 25 cartoons sold in the first hour of the sale. Which shows how many cartoons and movies are left?
(A) $(5 \times 13+3 \times$
12) $-25=56$
(C) $(5 \times 13+3 \times$
13) $-25=76$
(B) $(5 \times 13+3 \times$
14) $-25=66$
(D) $(5 \times 13+3 \times$
15) $-25=86$
