

Answers 1-12

- 19a + 11
- 5x + 8
- 13a + 8b + 9
- 12x + 3y
- 11x
- 4a + 3b + 1
- 12a + 3b + 30
- 5x + 7
- a + 16b + 10
- x + 8y + 12
- 4a + 4b + 2
- 10a + 7b + 4
- 12a + 2b + 24
- 12x + 9y
- 8x + 9y
- 13a + 9b + 11

Answers 13-24

- 5x + 3y + 18
- 5x + 9y + 34
- 2x + 7y + 37
- 8x + 6
- 7x + 7y
- 2x + 8y + 35
- 4x + 27
- 8x + 13
- 9x + 5y + 10
- 5x + 10y + 33
- 11x + 20
- 9x + 7y + 9
- 7x + 15y + 30
- 6x + 13
- 11x + 8y
- 6x + 8

# WHY DID OSLO GO TO THE SLED AND SLEIGH AUCTION?



Cross out the letter next to each correct answer. When you finish, the answer to the title question will remain.



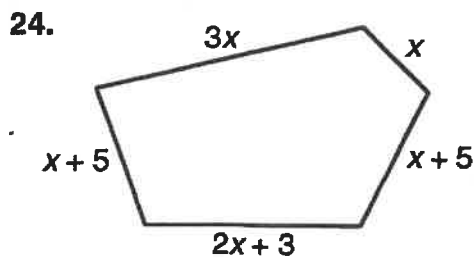
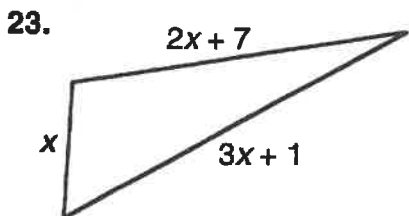
In Exercises 1-12, simplify the expression.

1.  $5x + 6x$
2.  $2x + 7 + 3x$
3.  $4x + x + 8$
4.  $2x + 9y + 6x$
5.  $x + 3y + 12 + 5y$
6.  $8x + y + 4x + 2y$
7.  $3a + 7b + 4 + 7a$
8.  $5a + 6 + a + 5 + 13a$
9.  $2b + 8b + a + 6b + 10$
10.  $9a + 4b + 4 + 4a + 5b + 7$
11.  $24 + 6a + b + 3a + b + 3a$
12.  $b + a + 2b + 2a + a + 1$

In Exercises 13-22, simplify the expression.

13.  $3(x + 2) + 5x$
14.  $7x + 4(x + 5)$
15.  $7 + 4(x + 5)$
16.  $2(x + y) + 9x + 6y$
17.  $5(x + 3) + 3(y + 1)$
18.  $6 + 6(x + 4) + 15y + x$
19.  $3(x + y) + 4(y + x)$
20.  $2y + 8(y + 1) + 5(x + 5)$
21.  $9 + 2(x + 7) + 7(y + 2)$
22.  $6(x + y) + y + 3(x + 3)$

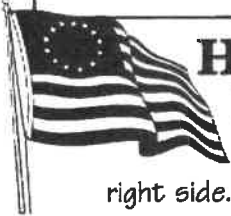
In Exercises 23-24, write an expression for the perimeter of the polygon. Simplify the expression.



PARTNER A (left side)

TEAM NAME

PARTNER B (right side)



## How Did Betsy Ross Know What Colors People Really Wanted for the New National Banner?

Simplify each expression. Partner A should do the left side and Partner B the right side. After completing each set, find matching answers. One will have a letter and the other a number. Write the letter in the matching numbered box at the bottom of the page.

SET 1

O.  $2y + 5(x + 4) + 6x$

L.  $9x + 8 + 3(x + y)$

A.  $10 + 3(2 + x) + 12(x + y)$

E.  $4(x + y) + y + 2(y + 5) + 6x$

SET 1

15.  $3y + 4(x + 2) + 8x$

3.  $3x + 10 + 7(x + y)$

5.  $11 + 9(1 + x) + 2(x + y)$

8.  $3(x + y) + y + 8(y + 2) + 12x$

SET 2

O.  $4n^2 + 7n + 5n^2 + 9n + 8$

A.  $6n^2 + n + 15 + 3n^2 + 12n + 5$

K.  $10 + 3n + n^2 + 8n + 9n^2 + 2n$

S.  $5n + 8 + 4n^2 + 4n + 1 + 6n^2 + n$

SET 2

7.  $8n^2 + 4n + 2n^2 + 9n + 10$

1.  $3n^2 + n + 4 + 7n^2 + 9n + 5$

11.  $20 + 8n + n^2 + 3n + 8n^2 + 2n$

14.  $10n + 7 + 5n^2 + 5n + 1 + 4n^2 + n$

SET 3

F.  $5(2w + 3) + 6w$

O.  $w + 4(7w + 1) + 24$

H.  $2(6w + 5) + 9(2w + 2)$

L.  $10(8 + w) + 11w + 3(4 + 3w)$

SET 3

2.  $7(3w + 4) + 9w$

9.  $w + 3(5w + 1) + 12$

16.  $9(2w + 8) + 4(3w + 5)$

6.  $6(3 + w) + 3w + 5(4w + 2)$

SET 4

G.  $9a^3 + 2a^2 + 6a + 7a^2 + a$

T.  $5a^2 + 9ab + 4b^2 + 5a^2 + b^2$

L.  $6a^3 + a^2 + 5a + 2a^3 + 4a^2 + 3a$

P.  $2a^2 + 8ab + 3b^2 + 6a^2 + ab + 4b^2$

SET 4

10.  $8a^3 + 3a^2 + 7a + 2a^2 + a$

13.  $4a^2 + 9ab + 6b^2 + 4a^2 + b^2$

12.  $2a^3 + a^2 + 5a + 7a^3 + 8a^2 + 2a$

4.  $3a^2 + 8ab + 3b^2 + 7a^2 + ab + 2b^2$

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