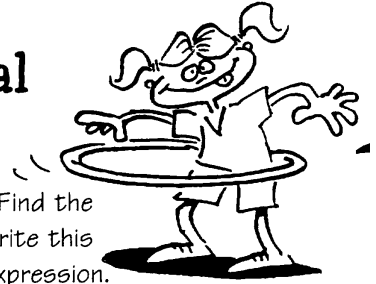


# Skills Sheet #3

## What Do They Call the International Hula Hoop Championships?



Simplify each expression, then evaluate it for the given value of the variable. Find the simplified expression in the answer column and notice the letter next to it. Write this letter in the box at the bottom of the page that contains the value of the expression.

<p>1. <math>-4x + 5 + 9x - 2</math>      if <math>x = 6</math></p> <p>2. <math>7 + 7x - (-2x) + 3</math>      if <math>x = -4</math></p> <p>3. <math>x - 8 + (-8x) - 15</math>      if <math>x = -9</math></p> <p>4. <math>-5 - 3x - x - (-16)</math>      if <math>x = 20</math></p> <p>5. <math>-6x + (-4) + 15x - 5 - 2x</math>      if <math>x = -1</math></p> <p>6. <math>7(x - 3) + 4x</math>      if <math>x = 3</math></p> <p>7. <math>9x - 2(x + 6)</math>      if <math>x = -10</math></p> <p>8. <math>15 - 4(a - 5)</math>      if <math>a = 8</math></p> <p>9. <math>a + 6(7 - a)</math>      if <math>a = -6</math></p> <p>10. <math>-5(-2a + 3) - 8</math>      if <math>a = -2</math></p> <p>11. <math>12a - 2(5a - 4) + 3</math>      if <math>a = 44</math></p> <p>12. <math>-a + 7(1 + 3a) - 20</math>      if <math>a = -3</math></p> <p>13. <math>4 - 4(-2a - 9) + 10a</math>      if <math>a = 2</math></p> <p>14. <math>-6a + 3(11 - 8a) - 2</math>      if <math>a = -5</math></p>	<p><b>Simplified Expressions</b></p> <p><input type="radio"/> S. <math>-7x - 23</math></p> <p><input type="radio"/> N. <math>7x - 21</math></p> <p><input type="radio"/> E. <math>7x - 12</math></p> <p><input type="radio"/> I. <math>5x + 3</math></p> <p><input type="radio"/> R. <math>-4x + 11</math></p> <p><input type="radio"/> O. <math>11x - 9</math></p> <p><input type="radio"/> H. <math>11x - 21</math></p> <p><input type="radio"/> E. <math>9x + 10</math></p> <p><input type="radio"/> I. <math>7x - 9</math></p> <p><input type="radio"/> F. <math>-4x - 12</math></p> <p><input type="radio"/> P. <math>-30a - 13</math></p> <p><input type="radio"/> E. <math>-5a + 42</math></p> <p><input type="radio"/> L. <math>20a - 13</math></p> <p><input type="radio"/> A. <math>18a + 31</math></p> <p><input type="radio"/> S. <math>10a - 23</math></p> <p><input type="radio"/> W. <math>-30a + 31</math></p> <p><input type="radio"/> H. <math>-4a + 35</math></p> <p><input type="radio"/> R. <math>18a + 40</math></p> <p><input type="radio"/> K. <math>20a + 40</math></p> <p><input type="radio"/> T. <math>2a + 11</math></p>
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175	99	12	-26	-88	181	3	33	-69	-73	64	-43	-82	76	-16	72	40	-18
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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.

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

In Exercises 13-22, simplify the expression.

- $3(x + 2) + 5x$
- $7x + 4(x + 5)$
- $7 + 4(x + 5)$
- $2(x + y) + 9x + 6y$
- $5(x + 3) + 3(y + 1)$
- $6 + 6(x + 4) + 15y + x$
- $3(x + y) + 4(y + x)$
- $2y + 8(y + 1) + 5(x + 5)$
- $9 + 2(x + 7) + 7(y + 2)$
- $6(x + y) + y + 3(x + 3)$

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

