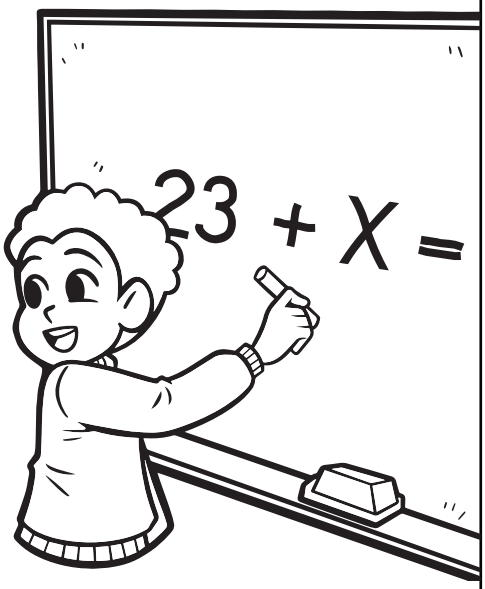
Name: _____

Writing Basic Algebraic Expressions

operation	example written numerically	example with a variable
addition (sum)	3 + 2	6 + x
subtraction (difference)	18 – 6	14 – *a*
multiplication (product)	4 x 5	9c
division (quotient)	16 ÷ 4	$\frac{18}{z}$



Rewrite each question as an algebraic expression.

1. What is the sum of *a* and 8? _____

2. What is the product of *y* and 10? _____

3. What do you get when you subtract 9 from *b*? _____

4. What is *c* divided by 22? _____

5. What is 12 decreased by *p*? _____

Rewrite each phrase as an algebraic expression.

6. *c* multiplied by 5 _____

7. 10 larger than *y* _____

8. 9 less than *e* _____

9. triple *r* _____

10. *p* divided by 4 _____

11. quadruple *f* _____

Write your answer to the word problems in the form of an algebraic expression.

12. There are x students trying out for a solo in a chorus concert. Only 6 will be chosen. How many students will not be chosen? _____

13. There are y students who volunteered to pull weeds in the school garden. The principal said she wishes she had three times as many volunteers. How many volunteers would the principal like to have? _____

ANSWER KEY

Writing Basic Algebraic Expressions

operation	example written numerically	example with a variable
addition (sum)	3 + 2	6 + x
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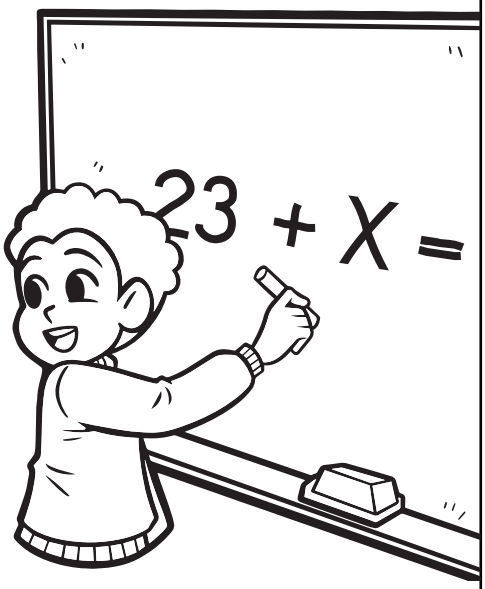

Rewrite each question as an algebraic expression.

1. What is the sum of *a* and 8? *a* + 8

2. What is the product of *y* and 10? 10*y*

3. What do you get when you subtract 9 from *b*? *b* – 9

4. What is *c* divided by 22? $\frac{c}{22}$

5. What is 12 decreased by *p*? 12 – *p*

Rewrite each phrase as an algebraic expression.

6. *c* multiplied by 5 — 5*c*

7. 10 larger than *y* — 10 + *y*

8. 9 less than *e* — *e* – 9

9. triple *r* — 3*r*

10. *p* divided by 4 — $\frac{p}{4}$

11. quadruple *f* — 4*f*

Write your answer to the word problems in the form of an algebraic expression.

12. There are x students trying out for a solo in a chorus concert. Only 6 will be chosen. How many students will not be chosen? x – 6

13. There are y students who volunteered to pull weeds in the school garden. The principal said she wishes she had three times as many volunteers. How many volunteers would the principal like to have? 3y