English to Algebra I

Answer in your exercise book.

Set I *Write the expression, not the answer.*

1. Alysha's mother bought her 5 pens. The pens cost $0.85 each. Write the expression for the total cost of the pens.
2. Belinda's mother bought her 10 notebooks. The total cost was $29. Write the expression for the cost of 1 notebook.
3. Raiesha's mother bought her a cake for $1.59 and a pie for $2.20. Write the expression for the total cost.
4. Kimberly's mother bought her a skirt and a blouse. The skirt cost $24. The total cost was $42. Write the expression for the cost of the blouse.

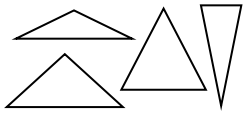
Set II *Use the table at the right.*

Item	Cost
Pencil	$0.19
Pen	$0.49
Notebook	$1.29

1. Alysha's mother bought her 5 pencils and 3 pens. Write the expression for the total cost (not the answer).
2. Belinda's mother bought her 8 pencils and 2 notebooks. Write the expression for the total cost.
3. Raiesha's mother bought her 3 pencils, 5 pens and a notebook. Write the expression for the total cost.

Set III *Write the expression, not the answer.*

1. I own 6 pairs of shoes. How many shoes do I own?
2. The ferrier put horseshoes on 9 horses. How many shoes did he use?
3. How many sides in the diagram on the right?
4. A diagram contains 4 triangles and 3 rectangles. How many sides altogether?



Set IV *Write the expression, not the answer.*

1. Kele is n years old. I am 3 years older than Kele. How old am I?
2. Shaq is n years old. I am 2 years younger than Kele. How old am I?
3. A-Rod is x years old. I am twice as old as A-Rod. How old am I?
4. Stephon is x years old. I am twice as old as Stephon. You are twice as old as me. How old are you?

English to Algebra II

Answer in your exercise book.

Set I *Write an expression and not an answer.*

1. How many legs do 3 chairs have?
2. How many legs do 5 chairs have?
3. What is the general rule for the number of legs on *n* chairs?

Set II *Write an expression and not an answer.*

1. How many eggs in 2 cartons of eggs?
2. How many eggs in 10 cartons of eggs?
3. What is the general rule for the number of eggs in *n* cartons?

Set III *Write an expression and not an answer. Use the conversions table at the right to assist.*

Conversions
1 cm = 10 mm
1 meter = 100 cm

1. How many millimeters in 3 centimeters?
2. How many millimeters in 26 centimeters?
3. Write the general rule for changing *c* centimeters into millimeters.
4. How many centimeters in 2 metres?
5. How many centimeters in 18 metres?
6. Write the general rule for changing metres into centimetres.

Set IV

Make up your own set of questions. Use interesting stories, for example legs on a spider. Then answer your questions.

1. How many …….
2. How many …….
3. What is the general rule for ……..

English to Algebra III

Write each as an **algebraic expression**. *Answer in your notebooks.*

1. a. The product of 4 and 5.
   b. The product of 4 and x.
   c. The product of x and 4.
   d. The product of x and y.

2. a. I have $6. John gives me $8. How much do I have altogether?
   b. I have a dollars. John gives me 3 dollars. How much do I have altogether?
   c. I have c dollars. I give Michelle 7 dollars. How much do I have now?
   d. I have f dollars. I bet it all and doubled my money. How much do I have now?
   e. I have y dollars. I give my friend Raymond half of my money. How much do I have left?

3. a. Sticks are each 3 inches long. I lay 5 sticks end to end. How long are they altogether?
   b. Sticks are each b inches long. I lay 3 sticks end to end. How long are they altogether?
   c. Sticks are each 8 inches long. I lay n sticks end to end. How long are they altogether?
   d. Sticks are each j inches long. I lay k sticks end to end. How long are they altogether?

4. Write each as an algebraic expression. Then simplify the expression.
   a. I have a stick that is n inches long, another stick that is $2n$ inches long and a third stick that $3n$ inches long. I lay them end-to-end. How long altogether?
   b. Jay gives me j dollars. Kay gives me k dollars. I bet their money and double it. How much do I have now?

5. **Consecutive numbers** are numbers that differ by 1. For example 3, 4, 5 and 6 are consecutive numbers.
   a. Write the expression for the sum of 5 consecutive numbers, the smallest being 8.
   b. Write the expression for the sum of 3 consecutive numbers, the smallest being *n*.
   c. Simplify this expression.
   d. Write the expression for the sum of 3 consecutive numbers, the largest being *n*.
   e. Simplify this expression.
   f. Write the expression for the sum of 5 consecutive numbers, the largest being *n*.

6. a. Write an expression for the number of cents in *d* dollars.
   b. Write an expression for the number of dollars in *c* cents.

7. a. A can of coffee costs $5. What is the cost of *n* cans of coffee?
   b. A marble weighs 12 grams. What is the cost of *p* marbles?

8. a. A taxicab charges $1.50 per mile. What is the cost of a trip that is *q* miles long?
   b. A taxicab charges *d* dollars per mile. What is the cost of a trip that is *q* miles long?
   c. A taxicab charges $3, plus $2 per mile. What is the cost of a trip that is *q* miles long?
   d. A taxicab charges $*x*, plus $2 per mile. What is the cost of a trip that is *q* miles long?
   e. A taxicab charges $*x*, plus $*y* per mile. What is the cost of a trip that is *q* miles long?

9. A stick is *t* feet long. I cut *v* feet from the stick. How long is the stick now?

10. Write an expression for each situation.
    a. I think of a number, then add 1. I double my answer.
    b. I think of a number, then double it. I add 1 to my answer.
    c. I think of a number. I subtract the number from 100, then double my result.

Answers

1. a. 4×5 b. $4x$
   c. $4x$ d. xy
2. a. $6 + 8$ b. $a + 3$ c. $c + 7$
   d. $2f$ e. $y/2$
3. a. 3×5 b. $b \times 3 = 3b$
   c. $8 \times n = 8n$ d. $j \times k = jk$
4. a. $n + 2n + 3n = 6n$ b. $(j + k) \times 2 = 2(j + k)$
5. a. $8 + 9 + 10 + 11 + 12$ b. $n + (n + 1) + (n + 2)$
   c. $3n + 3$ d. $(n - 2) + (n - 1) + n$
   e. $3n - 3$
   f. $(n - 4) + (n - 3) + (n - 2) + (n - 1) + n = 5n - 10$
6. a. $100d$ b. $d \div 100$
7. a. $5n$ b. $12p$
8. a. $1.50 \times q = 1.5q$ b. dq
   c. $3 + 2 \times q = 2q + 3$ d. $x + 2 \times q = 2q + x$
   e. $x + y \times q = qy + x$
9. $t - v$
10. a. $(n + 1) \times 2 = 2(n + 1)$
    b. $(n \times 2) + 1 = 2n + 1$
    c. $(100 - n) \times 2 = 2(100 - n)$