Christmas Math Songs

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Reprinted from **Vector**, *Volume 19, Number 2, December 1977*

TUNE – Santa Claus Is Coming To Town

Oh, you'd better take care completing the square;
you'd better not try dividing by y!
Math exams are coming to town.
We're making a list, don't shake in your boots;
Just watch out for extraneous roots –
Math exams are coming to town.
You know you'll have quadratics
And exponentials too
You rationalize denomi
Nators like the root of two.
So, you'd better be bright and calculate right –
You'd better check roots for the one that suits;
Math exams are coming to town.

TUNE – Jingle Bells

A day or two ago, I tried to solve for c;
When all the time, you know, I should have solved for b.
But after many tries, and sessions after school,
I uttered loud and joyful cries – when I found out this rule:
Oh, a and b, b and c – write them on the page:
Sometimes put down x and y – they seem to be the rage.
Don't give up – play it cool – make a guess or two.
And keep the paper neat and clean, and there's a pass for you.

TUNE – I'm Dreaming of a White Christmas

I'm dreaming of a quadratic, just like the one in our textbook,
Where solutions caper across the paper,
And make me think that I am smart.
I'm dreaming of a quadratic – And to myself each night I write:
'May quadratics give you no fright – And May all the answers be right.'

TUNE – Rudolph the Red-Nosed Reindeer

Zero, that funny cipher has a shape that looks like 'O.'
And if you want to use it, there are things you need to know:
Never divide by zero; if you do, you will be sad,
Getting a crazy answer, making your report look bad.
But treat zero as your friend – use him carefully –
'Safe to multiply or to add' – That's the rule for zero, lad!
Zero, that screwball number wants to be a comrade true,
But never divide by zero, **or you'll be getting zero, too!**

TUNE – O Tannenbaum

O Gometry, geometry, I am fearful about thee!
Geometry, my bugaboo, a subject I will ne'er let through.
You keep my brain in dizzy whirls
You're tough for boys and tough for girls;
Oh Gometry, geometry, what Satan's imp invented thee?

Fun with Holiday Facts and Figures

contributed by dave ellis, on exchange in edinburgh, scotland

Reprinted from Vector, *Volume 19, Number 2, December 1977*

1. Start with the number of the day in December upon which Christmas falls.

2. To this figure add the number of wise men who came bearing gifts to the infant Jesus.

3. Divide your score by the total number of carolers in the following group: *A trio of tenors, an alto and a pair of sopranos and a solitary basso.*

4. Multiply your score next by the number of e's in this sentence.

5. **Careful now.** Subtract from your score the grand total of the four numbers spoken in the following rhyme:

   Said Mrs. Claus to Mr. Claus while they ate on a November night,
   'It's time to start your diet, dear, for you'll not fit the chimneys right.'

6. Add next the number of ornaments in two boxes of ornaments if each box contains a dozen and a half.

7. If O. Henry wrote the Christmas story, 'The Gift of the Magi,' divide your score by 4; if he did not, divide your score by 3.

8. Next: Add to your score the number of people seated at this holiday table:

   Mom and Dad were at opposite ends of the table and my brother and I and his girlfriend sat across from her cousin and his wife and son.

9. In Charles Dickens' 'A Christmas Carol,' the story ends with the much quoted cry, 'God bless us, every one!' Which character utters this cry, Bob Cratchit, Tiny Tim, or Ebenezer Scrooge? Subtract from your score the number of letters in the character's name as listed here.

10. Divide your score by the number of misspelled words in the following group:

    EVERGREEN RESOLUTION MISTLETOW HOLLY RAINDEER

11. Irving Berlin wrote the song 'White Christmas.' If this statement is not false, subtract 6 from your score; if this statement is not true, subtract 5 from your score.

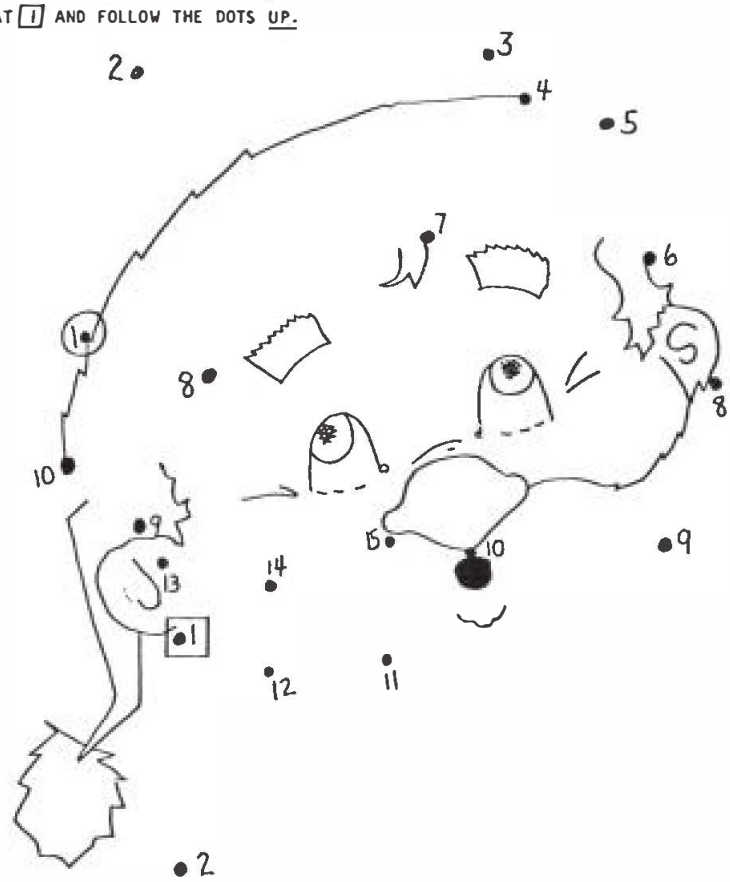
12. Our answer is the number of the day in January that is New Year's Day. IS YOURS?

Your Christmas Package

Reprinted from QAMT Journal, *Volume 1, Number 2, Christmas 1977*

The following pages contain an assortment of puzzles you can use in your classroom(s) during Christmas week. The Santa Claus puzzle is intended for Kindergarten and was created by Susan Jeannotte. *The first "secret message" puzzle was put together by* Gayle Legault *and* Susan Jeannotte, *and can be used by grades 1-3.* Gundie Robertson *created the next "secret message," and suggests it be used by grades 4-6. The final puzzle is the handiwork of* Jack Benoit, *and is intended for junior high school math students. So use your school's copying equipment and make a stencil of the appropriate puzzle for your class(es).*

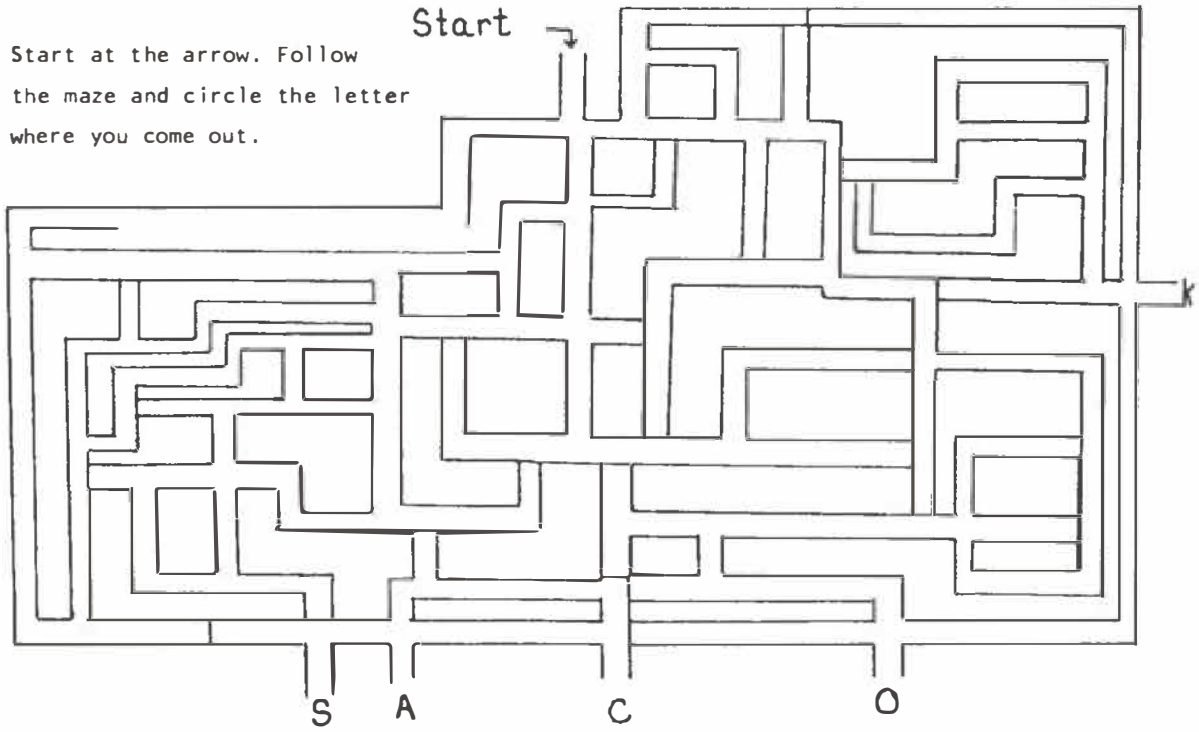
START AT (1) AND FOLLOW THE DOTS DOWN.
START AT [1] AND FOLLOW THE DOTS UP.



SOLVE EACH PUZZLE AND YOU WILL GET A LETTER.

PUT THE LETTERS TOGETHER AND FIND THE SECRET MESSAGE.

Start at the arrow. Follow the maze and circle the letter where you come out.

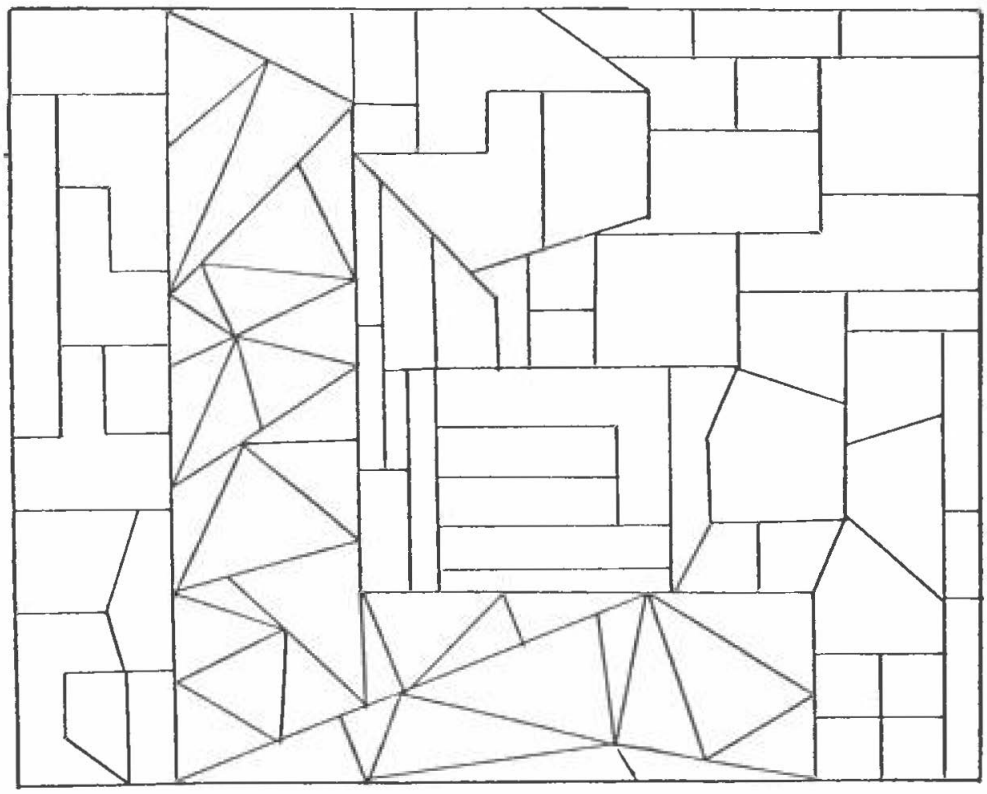


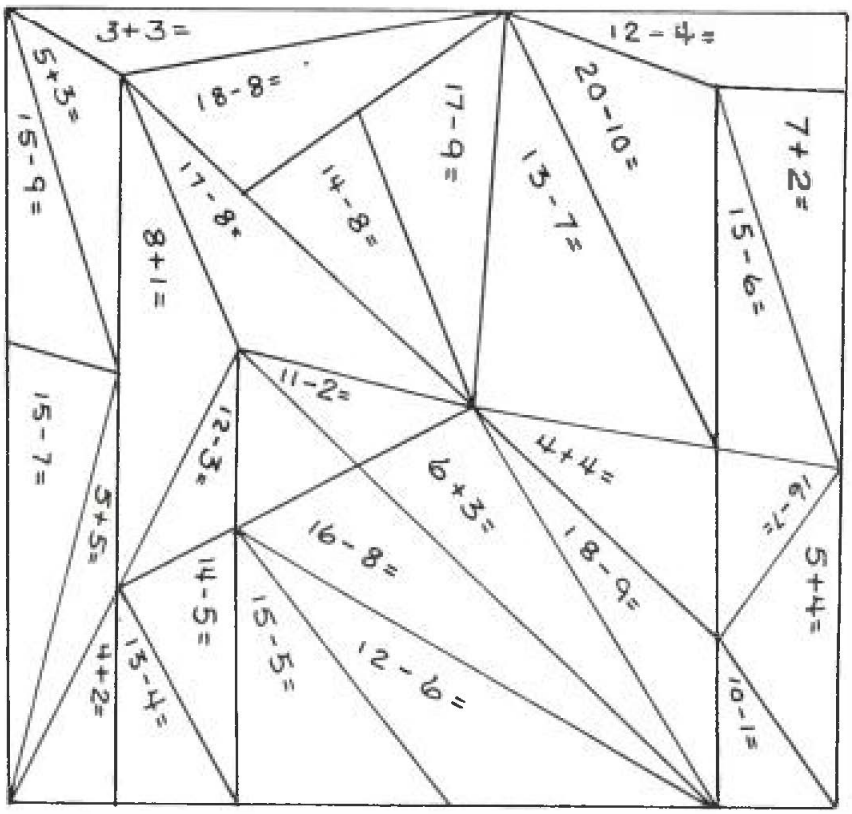
Color all the squares RED.

Color all the rectangles YELLOW.

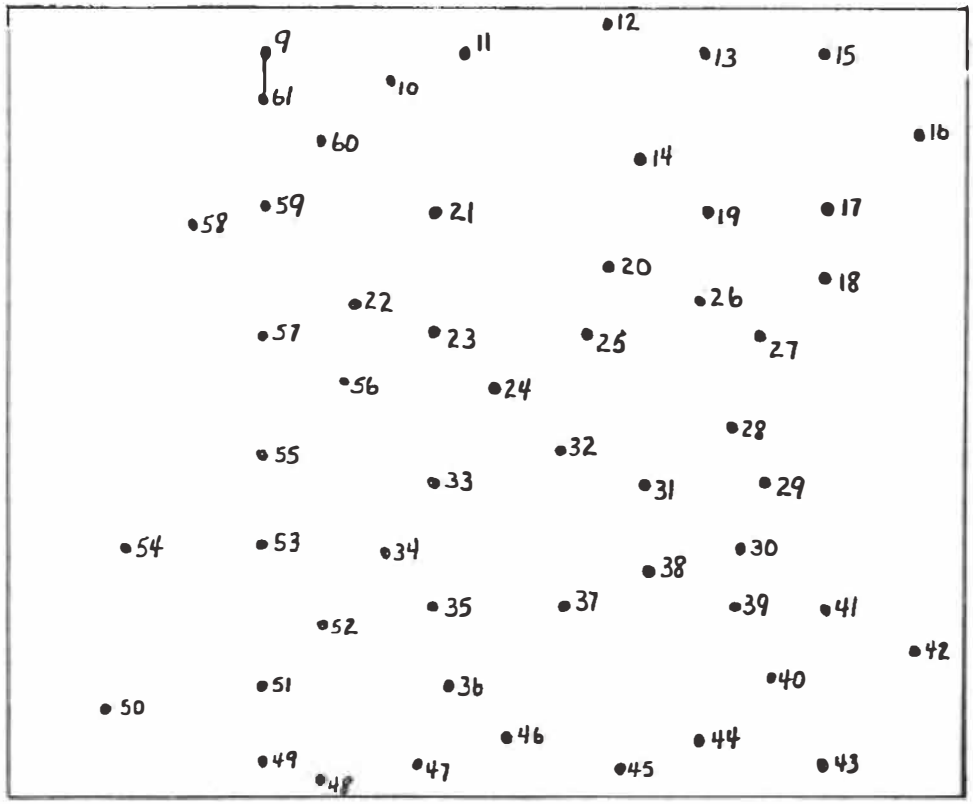
Color all the triangles GREEN.

Color all the odd shaped figures BLUE.





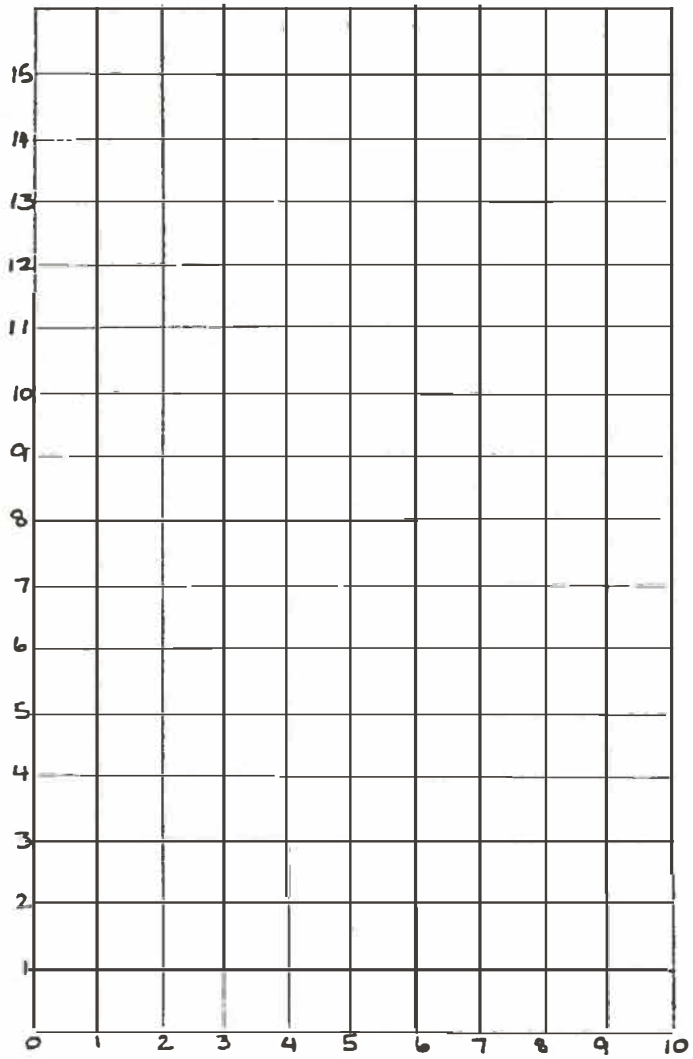
Solve all equations.
Color answers of ...
8 yellow
10 green
6 blue
9 red
What letter did you find?



Start at 9.
Follow the odd-numbered dots in order.

Directions

Solve each puzzle and you will get a letter. When you have finished, put the letters together. They will be scrambled. Unscramble them to read the message.



(2,2) (6,2) (2,2) (2,6) (5,6) (2,6) (2,10) (6,10)

Directions: Join the points in order. You will find a letter.

$3 \times 7 =$ _____ 400 = G

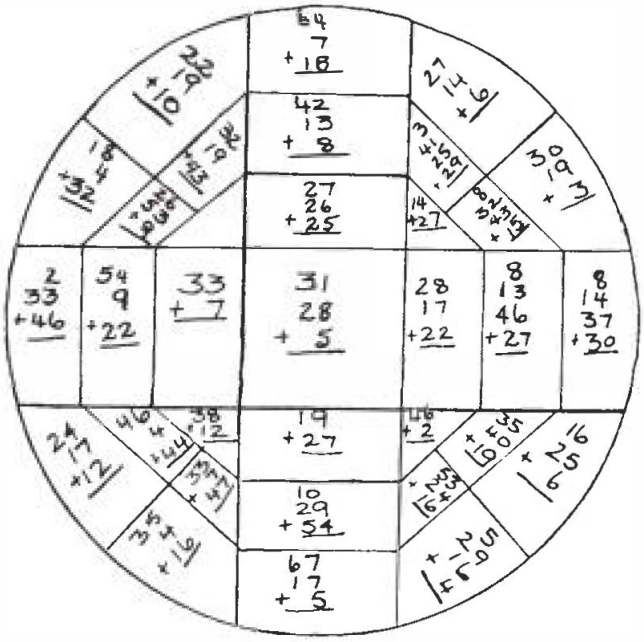
$183 \div 3 =$ _____ 146 = R

$173 - 87 =$ _____ 763 = A

$72 + 185 =$ _____ 425 = N

Ans. = _____ 207 = S

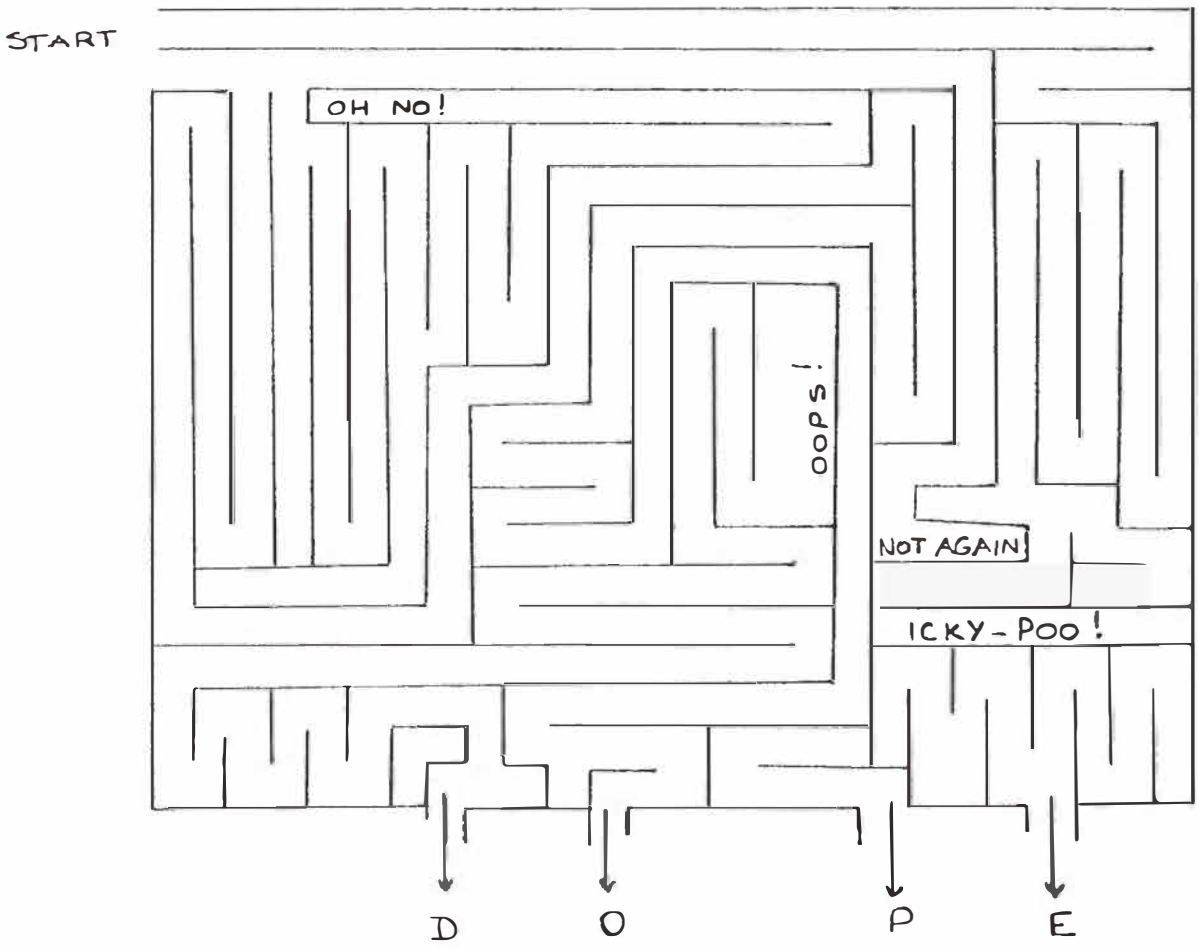
Do the above examples. Find the sum of your answers. It will equal a letter.



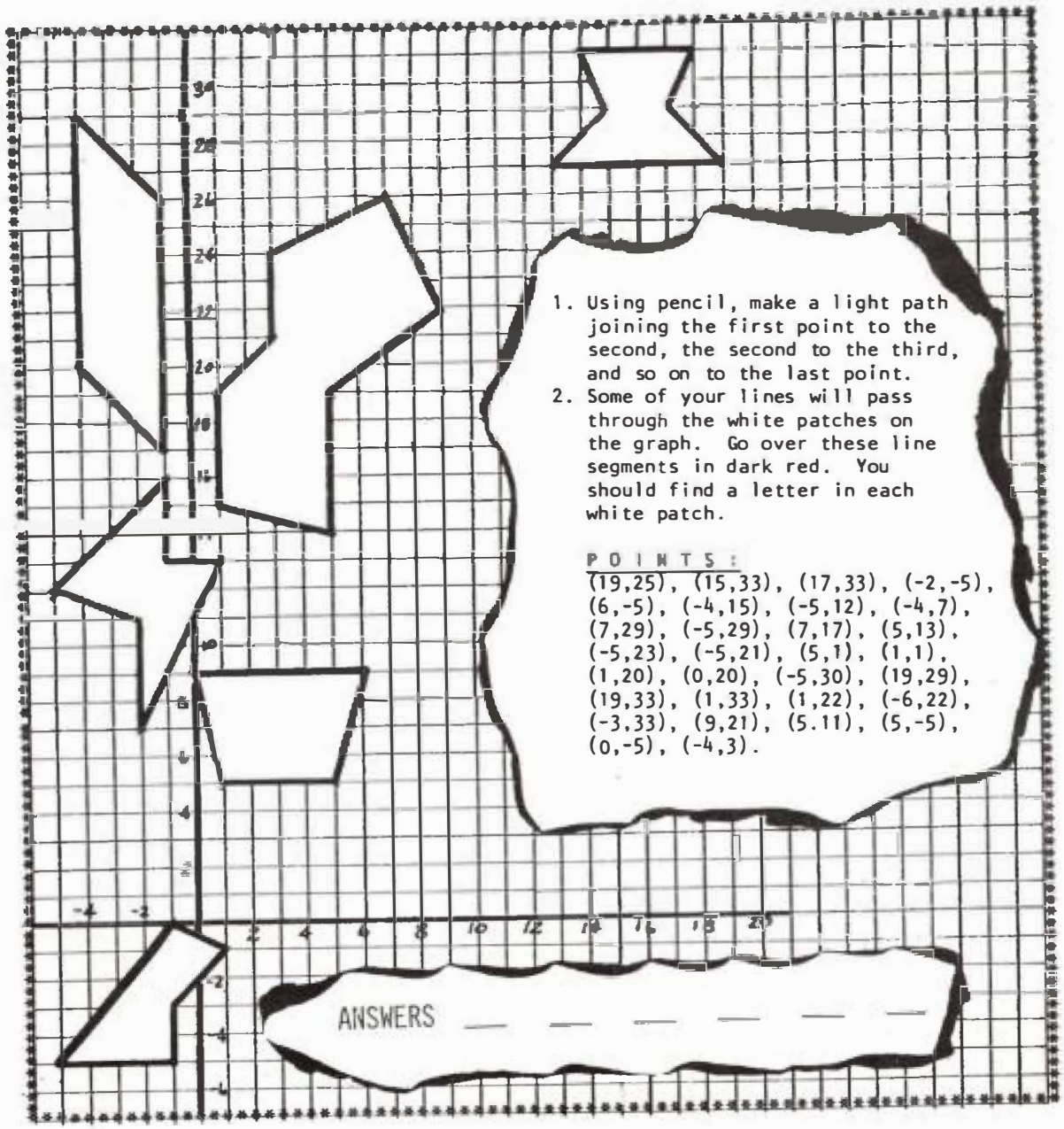
Color section BLUE when tens place is 4 or 5.

Color section RED when tens place is 6 or 7.

Color section GREEN when tens place is 8 or 9.

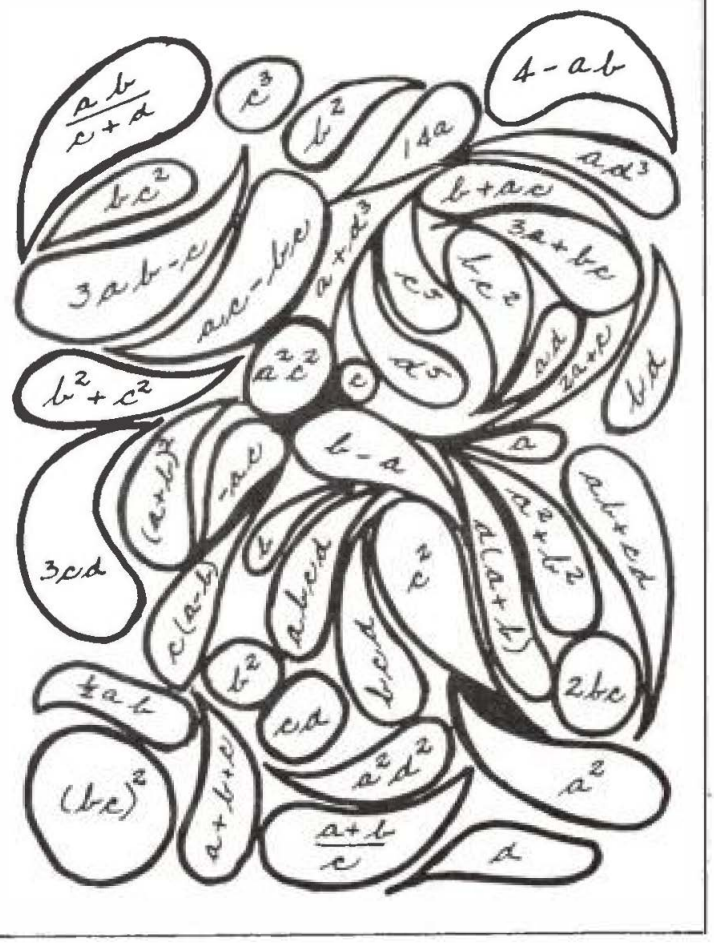


THESE PAGES CONTAIN 4 PUZZLES WHICH MUST BE SOLVED TO GET CERTAIN LETTERS.
GET THE 14 LETTERS, UNSCRAMBLE THEM, AND DISCOVER THE SECRET MESSAGE.



IN THE ACCOMPANYING DIAGRAM, USE $a=1, b=2, c=-1, d=0$, AND BLACKEN EACH AREA WHOSE VALUE IS 1. THE RESULT SHOULD FORM A LETTER. THERE ARE THREE OF THIS LETTER IN THE SECRET MESSAGE.

ANSWER:_____



GIVEN: $A = \{a, b, c, d, e\}$
$B = \{a, c\}$
$C = \{b, d\}$
$D = \{a, d\}$
$E = \{c, e\}$

EVALUATE:

$B \cap [(A \cap E) \cup (D \cap C)]$

ANSWER:____.

ANSWER EACH OF THE FOLLOWING QUESTIONS CORRECTLY, AND ADD ALL OF YOUR ANSWERS. USE THE RESULTING NUMBER TO DETERMINE THE LETTERS FOR THE SECRET MESSAGE.

1. The 15th term of 1,4,9,16,25,... ___
2. How many prime numbers between 10 and 50? ___
3. The value of $(-3)^5$ is ___
4. Number of sides in a pentagon ___
5. Work out 111111^2. The sum of the digits of your answer ___
6. The only 2-digit number that is both a perfect square and a perfect cube ___
7. $a^2 \quad b^2 \quad c^2$ suggests someone's Theorem. How many letters in his name? ___

If your answer is 217 use s a p
.... 324 use c u t
.... 108 use s i t
.... 773 use b u g
.... 58 use p e a

ANSWER:___ ___ ___

SECRET MESSAGE - TWO WORDS:

__ __ __ __ __

__ __ __ __ __ __ __ __ __