Pre-Christmas Attention Getters
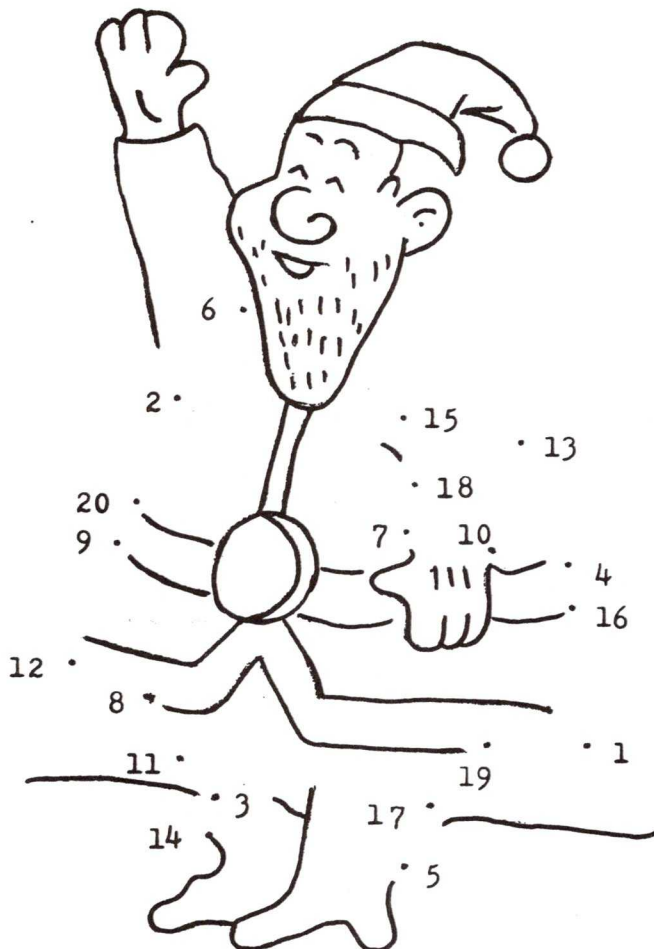
Here are some ideas to lend variety to your classes as the holiday season approaches.

Symbol Tree

Let the children make the symbols for trimming the tree. Each child identifies his symbol before hanging it on the tree. When the tree is filled, call on children to construct a number sentence using one or more of the symbols on the tree.

Santa

First do the questions. Then connect the like numbered dots to complete the picture in the same order as your answers.

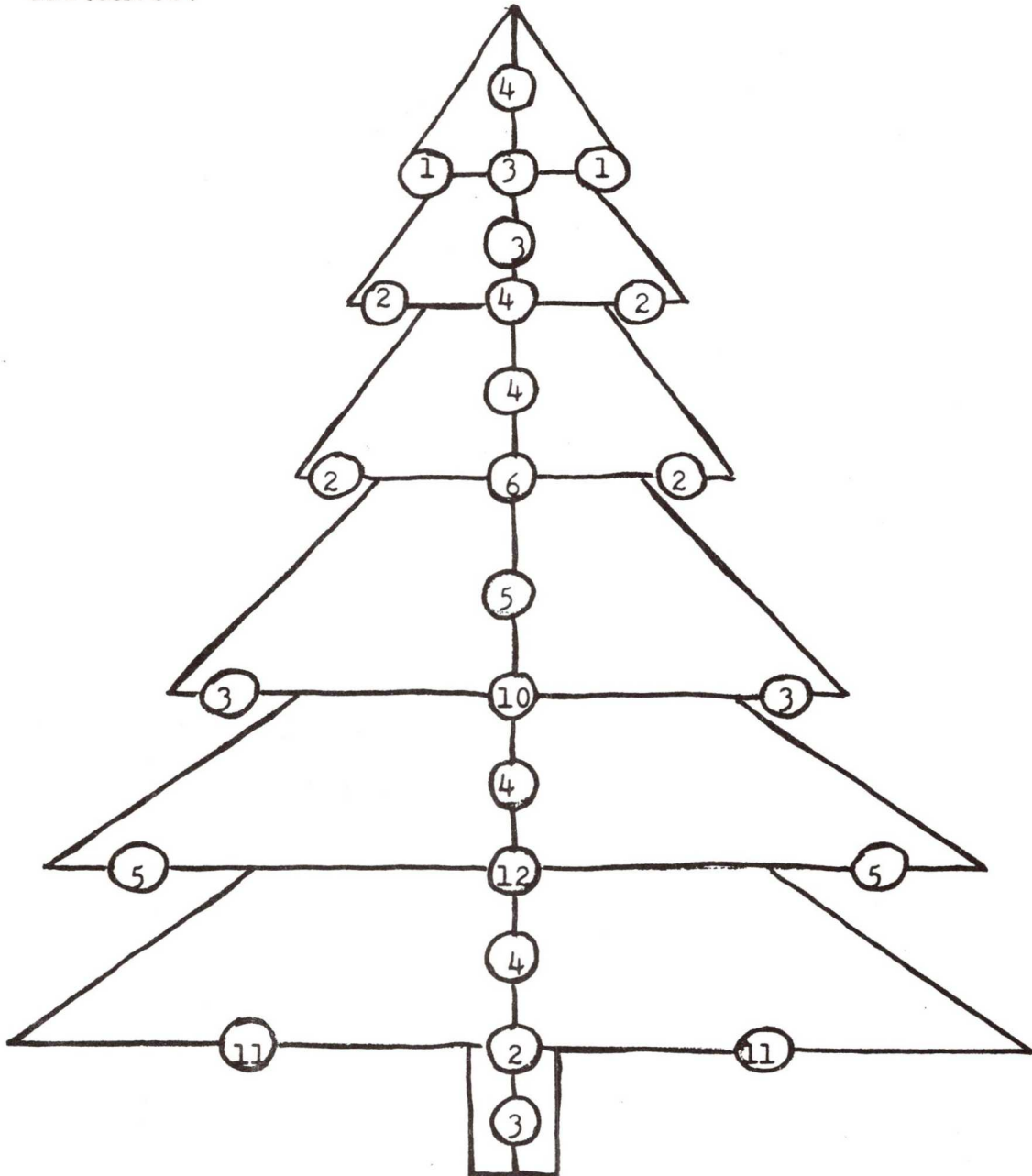|	
$2 + 4 =$	$21 - 4 =$
$7 - 5 =$	$11 + 8 =$
$4 \times 5 =$	$7 - 6 =$
$3 \times 3 =$	$4 \times 4 =$
$6 + 6 =$	$8 \div 2 =$
$15 - 7 =$	$20 - 7 =$
$3 + 8 =$	$5 + 5 =$
$12 \div 4 =$	$14 \div 2 =$
$7 \times 2 =$	$6 \times 3 =$
$15 \div 3 =$	$20 - 5 =$

Both of these ideas are from 'Treasury of Classroom Arithmetic Activities' by J. Crescimbeni; Parker Publishing Company

Merry Christmas*

Can you find the volume of the Christmas tree if the various
shapes are conical and the figures in the ornaments are
distances?

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I Wish You
        Happy New Year!
The oldest greeting of mankind. It has been observed for
1,000,000 years and celebrates the rebirth of the sun.

Ripley's Believe It or Not!

4

From; 'The Math. Wizard'; op.cit.

Algebra Holiday Quiz

Here is a quiz for the Christmas holiday season. U R 2 solve for the value of (x) in each of the equations below. Place your answer in the space provided at the left. When you have solved all the equations, unscramble the letters to get the message.

_____ $x + M = 2M$

_____ $3x - s = 2s$

_____ $\dfrac{vt^2}{g} = \dfrac{vxt}{g}$

_____ $swx = swh$

_____ $pr = xp$

_____ $\dfrac{x}{a} = 1$

_____ $7 + ax = ay + 7$

_____ $bx + be = 2be$

_____ $2x - 2s = 0$

_____ $5i + x = 6i$

_____ $x - b = -b + C$

_____ $5x - 2r = r + 2x$

$m^2x = m3$

_____ $8x + mv = 8r + mv$

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The following idea comes from 'Arithmetic Enrichment Activities for Elementary School Children' by J. Crescimbeni.

Christmas Stocking

Stocking-shaped pieces, approximately six inches long, are cut from red paper, in pairs. (Double the paper and cut, to be sure of getting exact duplicates.) Number combinations are pasted on stockings in such an arrangement that each pair of stockings has two combinations with the same answer (as "5 + 4" and "7 + 2"). Stockings are distributed about the room singly. Pupils are given one of a pair, find the other by matching combination answers, and pin them on a Christmas tree.

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"32nd in 1A, 18th in 2B and now 6th in 3C. Well done, son. By the time you are in the 6th Form you should be ready for university."

Christmas Tree Puzzle from 'Yes, Math. Can Be Fun!' by Louis
Grant Brandes; J. Weston Walch, Publisher.
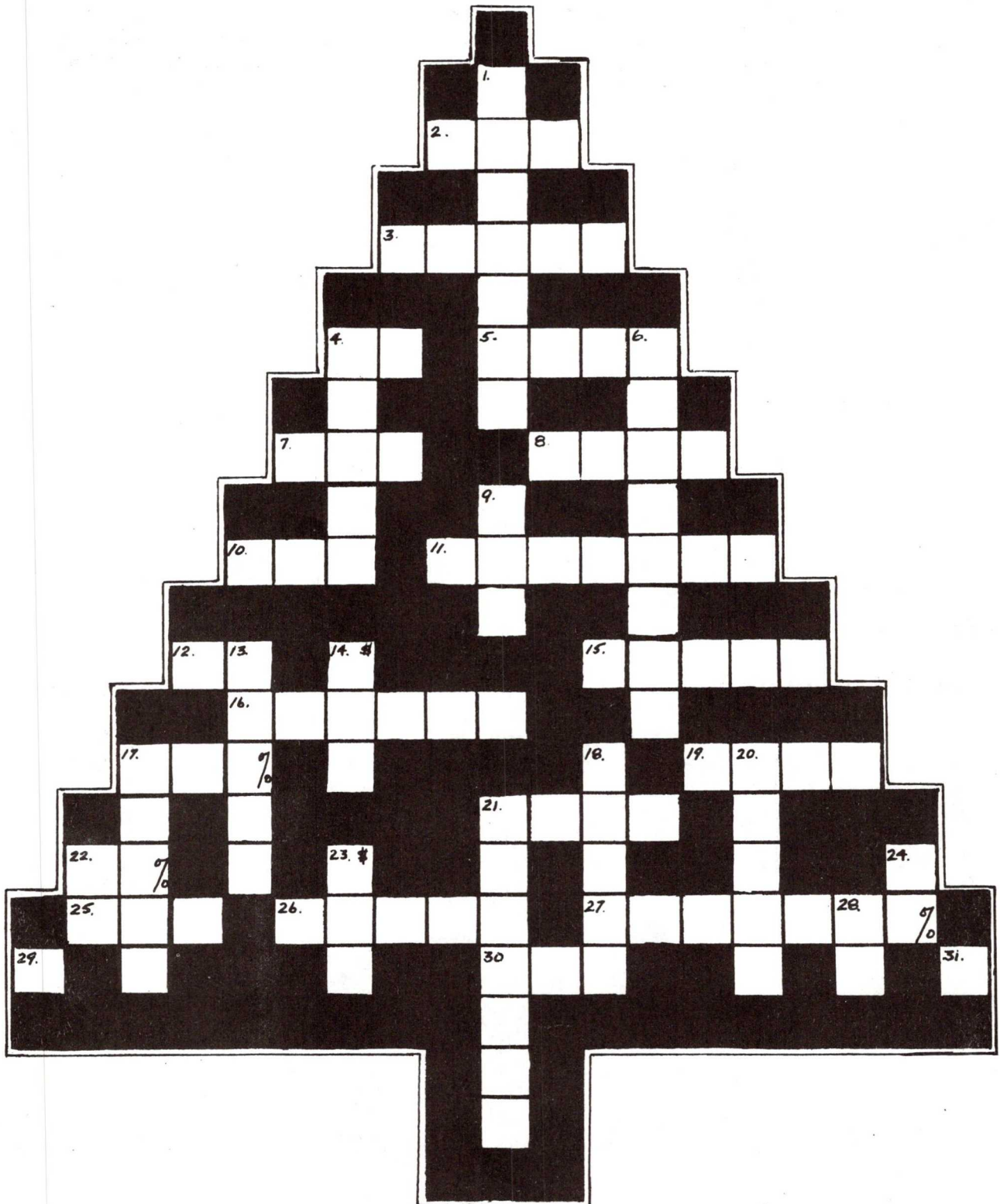
Christmas Tree Puzzle Questions

Horizontal

2. 45% of 680

3. 378.54 x 50

4. Number of sixteenths in 75%

5. 5,000 - 378

7. $\dfrac{49 \times 75 \times 18 \times 12}{35 \times 20 \times 9}$

8. 2,113 + 79 + 54 + 138 + 15 + 4,177

10. 20,224 divided by 79

11. 16.423689 - 12.358

12. 10 4/5   .4

15. 73% of 82,600

16. 5% of what number is 11,375?

17. What per cent of 15 is 18?

19. 70.5 is .625 of what number?

21. 853.8 + 497.08 - 149.88

22. 26 is what per cent of 40?

25. 40% more than 320

26. 5% of what number is 2,150?

27. How many feet in 224 statute miles?

29. Find ½% of 600

30. Take .32 of 725

31. 50% more than 2 is 300% of what number?

Vertical
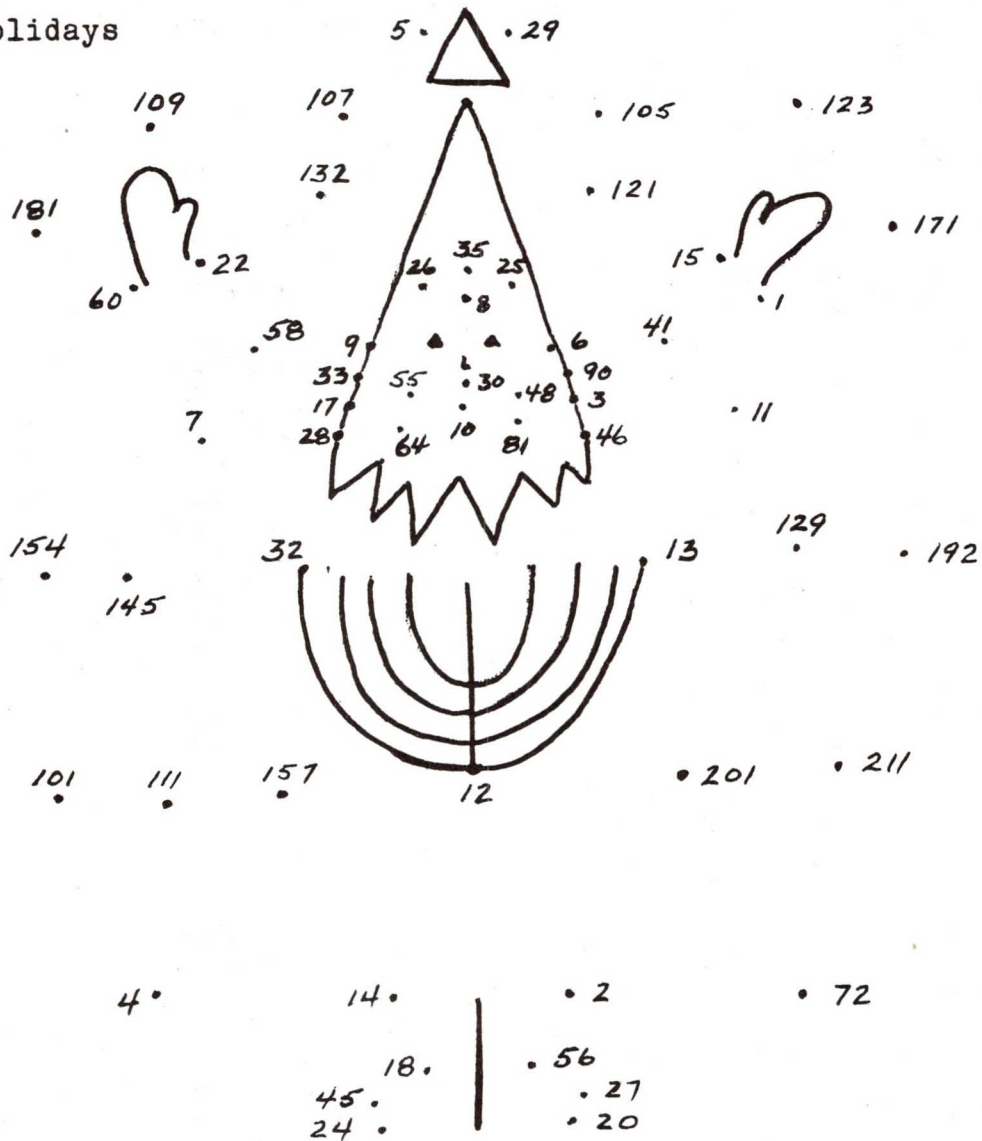
1. 25 x 81,973.64

4. 200% of 7,128

6. 6,832,158 + 14,798,325 + 4,126,022

9. 67 2/3 + 65 1/4 - 27 11/12

13. Round off 71,951 to the nearest thousand

14. Amount of wages at $37 1/2 a week for a period of ten weeks

17. Number of square feet in 1,838 square yards

18. Divide 901 by 1/12

20. How much is 24% more than 151?

21. Number obtained by dividing 5,007 by 1/300

23. $795 less 33 1/3% discount

24. A commission of $168 on $560 is a commission of what per cent?

28. The least common denominator of 5/6, 3/8, 2/3, 7/12 and 1/4

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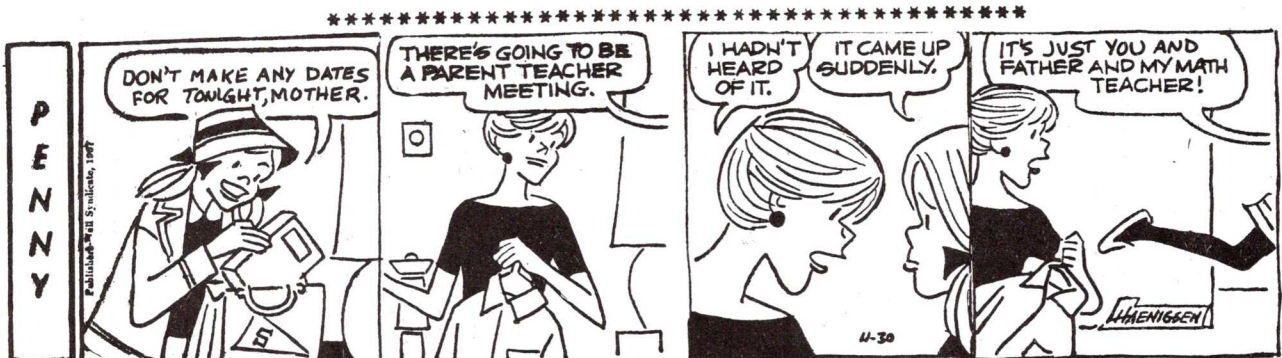
A Midwest Publications booklet entitled 'Math Amusements in Developing Skills' provides this activity.

Winter Holidays

Connect the answers in order.

1. $283 + 159 - 353 =$

2. $2^2 + 3^2 + 4^2 =$

3. $\sqrt{25} =$

4. $\frac{2}{3} + \frac{7}{3} =$

5. $2^4 + 5^2 =$

6. $8^2 - 7^2 =$

7. $\frac{1}{2} + \frac{2}{3} - \frac{1}{6} =$

8. $\sqrt{121} =$

9. $\sqrt{169} =$

10. $4 \times 3 \times 7 \times 8 - 600 =$

11. $66 - 4^3 =$

12. $\sqrt{144} =$

13. $14\frac{3}{4} - \frac{6}{8} =$

14. $\sqrt{225} + 3 =$

8   cont.

Winter Holidays (cont)

15. $9^2 - 6^2 =$

16. $5^3 - 101 =$

17. $3\frac{1}{3} \cdot 6 =$

18. $\sqrt{100} + 17 =$

19. $3^4 - 5^2 =$

20. $142 + 237 - 377 =$

21. $\sqrt{196} - 10 =$

22. $4^3 - 2^5 =$

23. $(24 + 32) \div 2^3 =$

24. $16^2 - 14^2 =$

25. $\sqrt{484} =$

26. $4\frac{5}{6} \div \frac{1}{12} =$

27. $10^3 - (8^3 + 7^3 + 2^7) =$

28. $783 \div 9 - 78 =$

29. $(15^2 + 3^2) \div 9 =$

30. $\sqrt{1225}$

31. $(5^2 \times 3^3) \div 27 =$

32. $31 - \sqrt{625} =$

33. $355 \div 5 + 19 =$

34. $5\frac{2}{5} + 2\frac{1}{2} + \frac{1}{10} =$

35. $(3 + 4)^2 - (5 - 1)^2 =$

36. $\sqrt{784}$

37. $12 \times 32 \div 6 =$

38. $360 \div (2 + 4)^2 =$

39. $(13 - 4)^3 \div (27 \div 3) =$
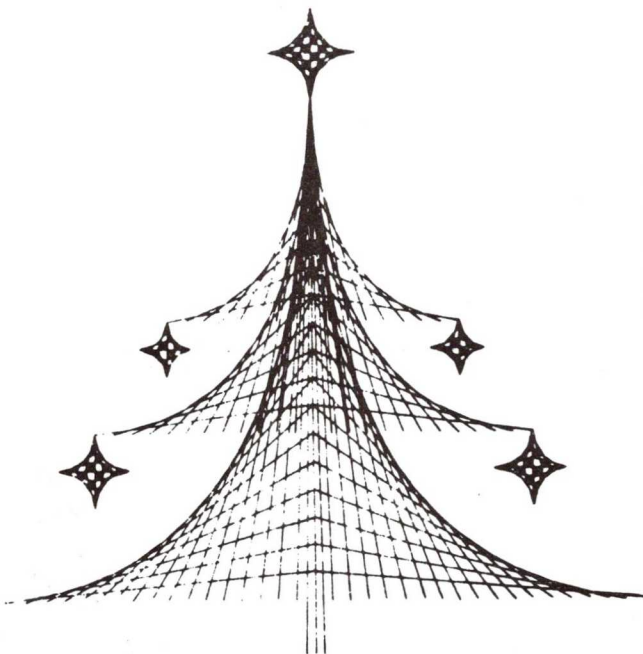
40. $\sqrt{2116}$

41. $1475 \div 25 - 56 =$

42. $13^2 - 11^2 =$

43. $3\frac{1}{8} \times 4\frac{4}{5} \times 2 =$

44. $28^2 - 27^2 =$

45. $6^3 - \sqrt{40000} + 1 =$

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This Christmas tree is drawn entirely with straight lines. This and other designs are found in 'Line Designs' by Seymour, Silvey and Snider. The book is available from SETSCO Educational Ltd.

Directions for Christmas Tree Plot-Dots by Gary Deatsman;
from the 'Arithmetic Teacher', February 1974.

1. Go over 8 and up 1 for dot number 1
2. Go over 8 and up 3 for dot number 2
3. Go over 10 and up 12 for dot number 9
4. Go over 5 and up 12 for dot number 16
5. Go over 7 and up 18 for dot number 12
6. Go over 9 and up 15 for dot number 11
7. Go over 11 and up 6 for dot number 4
8. Go over 3 and up 6 for dot number 20
9. Go over 4 and up 9 for dot number 18
10. Go over 13 and up 3 for dot number 3
11. Go over 6 and up 3 for dot number 22
12. Go over 8 and up 15 for dot number 10
13. Go over 5 and up 15 for dot number 13
14. Go over 11 and up 9 for dot number 7
15. Go over 12 and up 6 for dot number 5
16. Go over 1 and up 3 for dot number 21
17. Go over 3 and up 9 for dot number 17
18. Go over 6 and up 1 for dot number 23
19. Go over 10 and up 9 for dot number 6
20. Go over 9 and up 12 for dot number 8
21. Go over 6 and up 15 for dot number 14
22. Go over 4 and up 12 for dot number 15
23. Go over 2 and up 6 for dot number 19

The same tree using ordered pairs: Connect the dots in order;

1. (8,1)	9. (10,12)	17. (3,9)
2. (8,3)	10. (8,15)	18. (4,9)
3. (13,3)	11. (9,15)	19. (2,6)
4. (11,6)	12. (7,18)	20. (3,6)
5. (12,6)	13. (5,15)	21. (1,3)
6. (10,9)	14. (6,15)	22. (6,3)
7. (11,9)	15. (4,12)	23. (6,1)
8. (9,12)	16. (5,12)	

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Some ideas for Christmas from the December, 1973 issue of
'The Arithmetic Teacher'. The activities prepared by
G. Immerzeel and D. Wiederanders focus on problem solving.

How many presents?

1. Kathy and Allison have 9 presents together.
   Kathy has one more present than Allison.
   How many presents has each girl?

2. If Lynne had 2 more presents, she would
   have 9. How many presents has Lynne?

3. Bill, Pete and Paul all have the same
   number of presents. Together they have
   12. How many presents does each boy have?
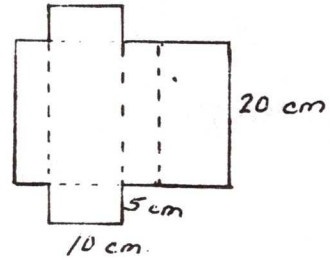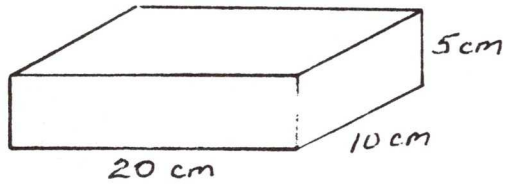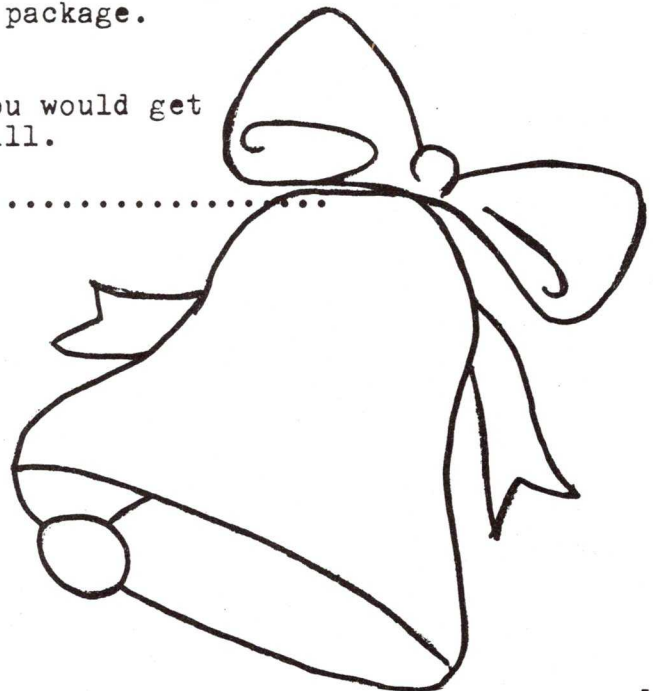
Wrap the Christmas present.

1. How much wrapping paper is needed to cover the box?

2. Allow 4 cm for an overlap going around the box and 4 cm extra on each end. How large a piece of paper is needed?

3. Tie it with a ribbon. How long a ribbon do you need to go around both ways?

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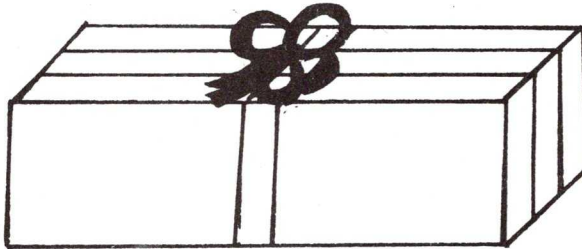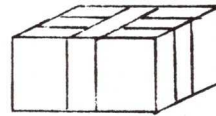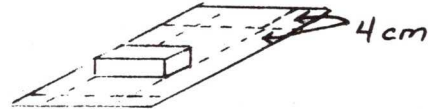
1. How big is the package?
   .. Its length is twice its width.
   .. Its height is half its width
   .. Its length is 25 cm.

2. How much does it weigh?
   .. One fourth of the package weighs 200 grams less than one half of the package.

3. How much did it cost?
   .. If you buy two of them, you would get $4.50 change from a $20 bill.

. . . .

HAPPY NEW YEAR