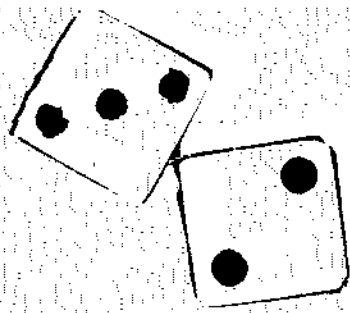
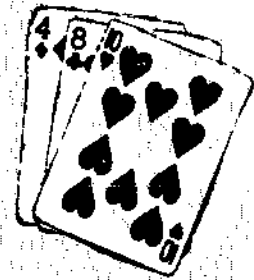
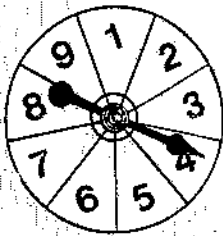
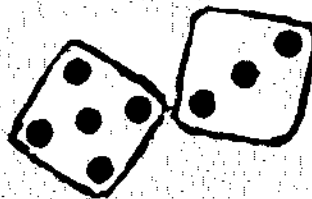




PRIMARY MATH METHODS: A DEVELOPMENTAL APPROACH



EDMA 5003



ROBERT FEMIANO

CARD GAMES

WAR

Use cards A-10. Deal out among 2-4 players. Turn over one card each from the face down pile. Highest value wins all cards. Winner is first to win all cards. Player loses when s/he cannot complete a turn. War is declared when there is a tie. 3 cards down then 1 up. Compare and winner takes all cards.

DOUBLE WAR

Use cards A-10. Deal into face down piles. Turn over two cards and add. Highest value wins. In ties, you declare war and proceed as above except you turn over 2 cards and add them and compare. TRIPLE WAR would be another variation.

MAKE THE BIGGEST NUMBER

Use cards A-9 (or you can include the ten). Deal out to 2-4 players in a face down pile. Game is played as in WAR. Players turn over two card to make the largest number possible from the two digits. e.g. 27 or 72? Players compare their largest numbers and play continues as in war. Ties are settled by again making the biggest number. Game can also be play by trying to make the smallest number.

TENS

Uses cards A-10. Shuffle and place deck face down for a common drawing pile. Use a 3x3 (tic tac toe style) board in which are turned up 9 cards. Players take turns picking off combinations of ten (e.g. 8+2 or 10+0). Board is replenished from draw pile before each player begins their turn. Winner is one with most cards at the end. Rules can be made that players are able to collect more than two cards (e.g. 3+4+3). If no combinations exist on the playing board, players may elect to end game or replace a specified number of cards with new ones.

TIC TAC 15

Make a tic tac toe board using 8½x11 paper or oaktag. One player holds one of each of the even cards 2,4,6,8 while the other player holds the five odd cards A,3,5,7,9. The odd player goes first but holding five cards or going first does not give any real advantage.

COIN WAR

Use punchouts in back of workbooks or coin stamps to make decks of coin cards whose value vary up to whatever level you want your students to be counting money. When cards are turned over, players count their coins and see whose total is highest. Ties are played as in war. When making up the deck, be sure to have 4 or more of the same value cards so that ties are more likely.

50 SQUARES

Draw 50 squares in a five by ten array on a sheet of paper (for duplication). Students roll dice and add that many chips to their board, trying to be the first to fill then empty their game boards. Once a player has covered the squares, they then begin to remove or subtract the roll of the dice.

MORE GAMES

CLOSE OUT

Lay face up, one card each from one to nine. Roll 2 dice. Turn cards face down that total the same as the dice. (e.g. 4 and 3 on dice means player could turn over the 7 card, or the five/two or the six/one or any other combination. But only one combination per roll. Roll again and do same. Continue until player can no longer make the dice total on the cards. Face up cards are totaled and players turn ends. First to 45 points loses.

ZERO GAME

Remove odd heart cards from deck. Shuffle and deal 3 cards to each player. Score starts at 30 and as each player lays a card down on a discard pile (face up), they subtract the face value from the current value of the pile, getting ever closer to zero but not going below it. Even hearts are added to the score, helping a player to avoid being forced to lay a card which reduces the pile value below zero. After each turn a player replenishes their hand from the draw pile. When a player goes below zero, game ends and they receive a chip or bottle cap. First player to accumulate 10 chips loses.

20/20

Uses cards A-10 and tiles or chips with the number 20 written on them. Each player takes 6 tiles/chips and the shuffled cards are dealt, five to each player. Cards are layed on table in scrabble fashion. When a player lays a card that makes a row or column total 20, they lay one of their chips to signal the end of that row. Play continues (replenishing hand from draw pile) until six chips are played.

150 EXACTLY

Use a hundreds board and three dice. Players race to one hundred then start again going up to 50. Must land on 150 exactly. Player goes back and forth around the fifty until they land exactly on it.

OTHER IDEAS

Consider using polyhedra dice for addition problems with teens. You can also make dice from those multicolored 1 inch wooden cubes. You can also use written numerals instead of dots.

SUBTRACTION WAR

Same as double war except that you subtract. Highest difference wins.

99

Uses all cards in a standard playing deck. Cards are shuffled and dealt to the two or more players. Object of game is to not go over a total of 99 or else you lose. Play begins with player holding Ace of Spades, who lays it in the center of the table. Each player in turn lays a card on top of the preceeding one and says the new total of the pile. The numbered cards are worth their face value and will be added to the playing pile while a face card is worth a negative or minus 10 and when it is layed on the playing pile, 10 will be subtracted from the total. . Game can also be played whereby a winner is declared as the first to make 99 exactly.

Salute

Cards 1-10. 2 players and 1 referee. Deal cards face down into two piles. Each player draws their top card and without looking places it on their forehead, face outward. They can see their opponent's card but not their own. The referee calls out the total of the two cards and the first player to name their own card is the winner.

NINE-O

Uses three cards each, A-8 plus the nine of hearts. Cards shuffled and dealt. When cards total nine (6 and 3, e.g.), players lay them down. Players take turns drawing a card from the player immediately to their left. Play continues, with the last one holding the nine-o declared the loser (or winner).

DICE GAMES

WHAT'S ON THE BOTTOM

Standard dice are constructed so that opposite faces total seven. Roll one, two or three dice and predict the total on the bottoms. In regular dice games, the moves of the playing pieces can be determined this way, just to add variety.

UNCOVER

Uses playing board numbered 2-12 on each of two sides. 11 chips are used to cover up the numbers on each players side. Player announces at beginning of turn if s/he is rolling one or two dice then removes the chip covering the number that is the same as the total of the dice. First player to uncover all 11 numbers is the winner. Can also be played as a "cover up" game.

STACKS O' PENNIES

Its a race to collect one hundred pennies (or chips) in stacks of ten. Using dice (see more choices below), players collect that many pennies. If you make up a board with spaces numbered 1-100, then each time a player completes a turn (moving the man and collecting the coins), his landing number should match his penny count.

UNCOVER 10's

1

3

4

8

5

6

9

5

4

2

5

2

1

7

6

9

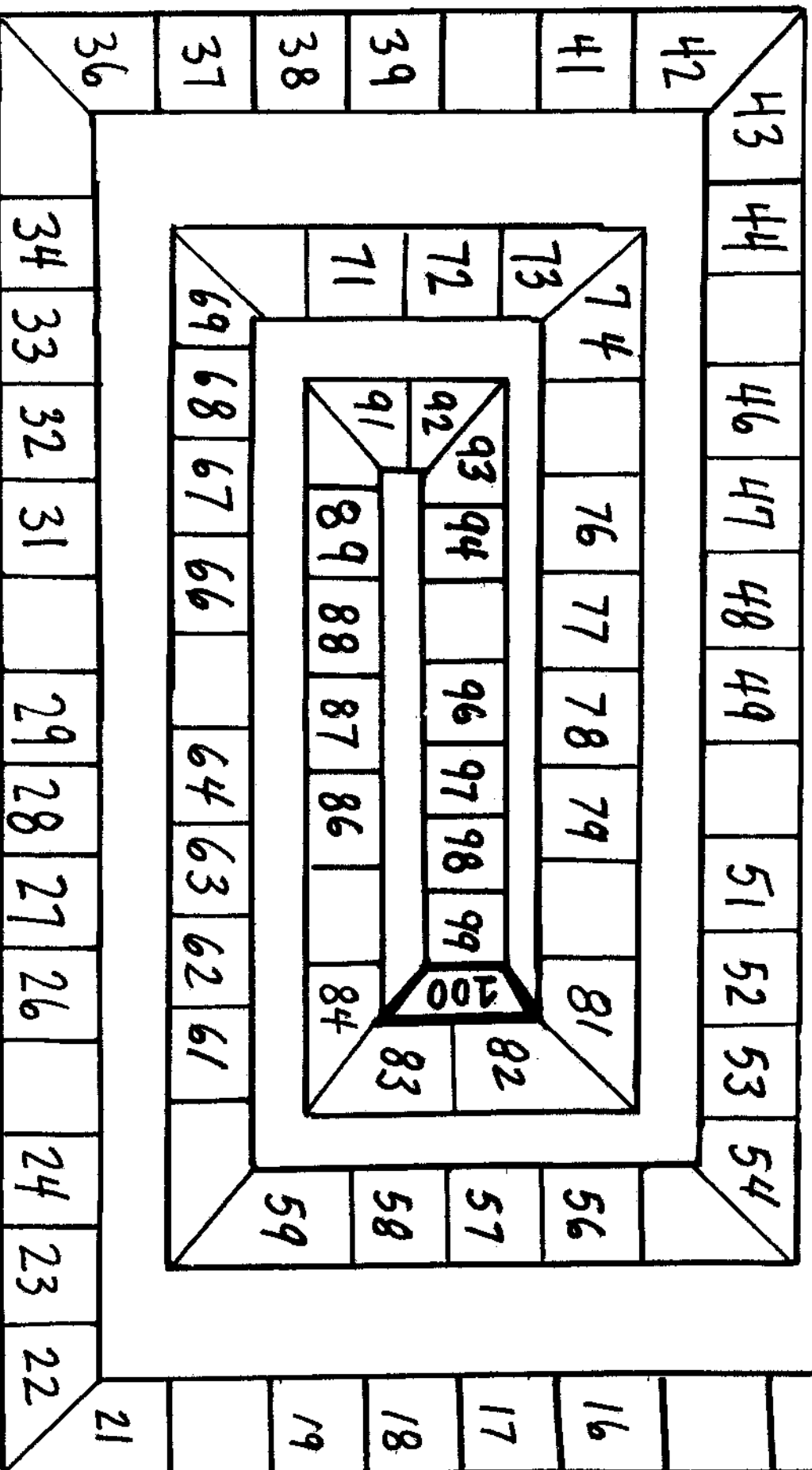
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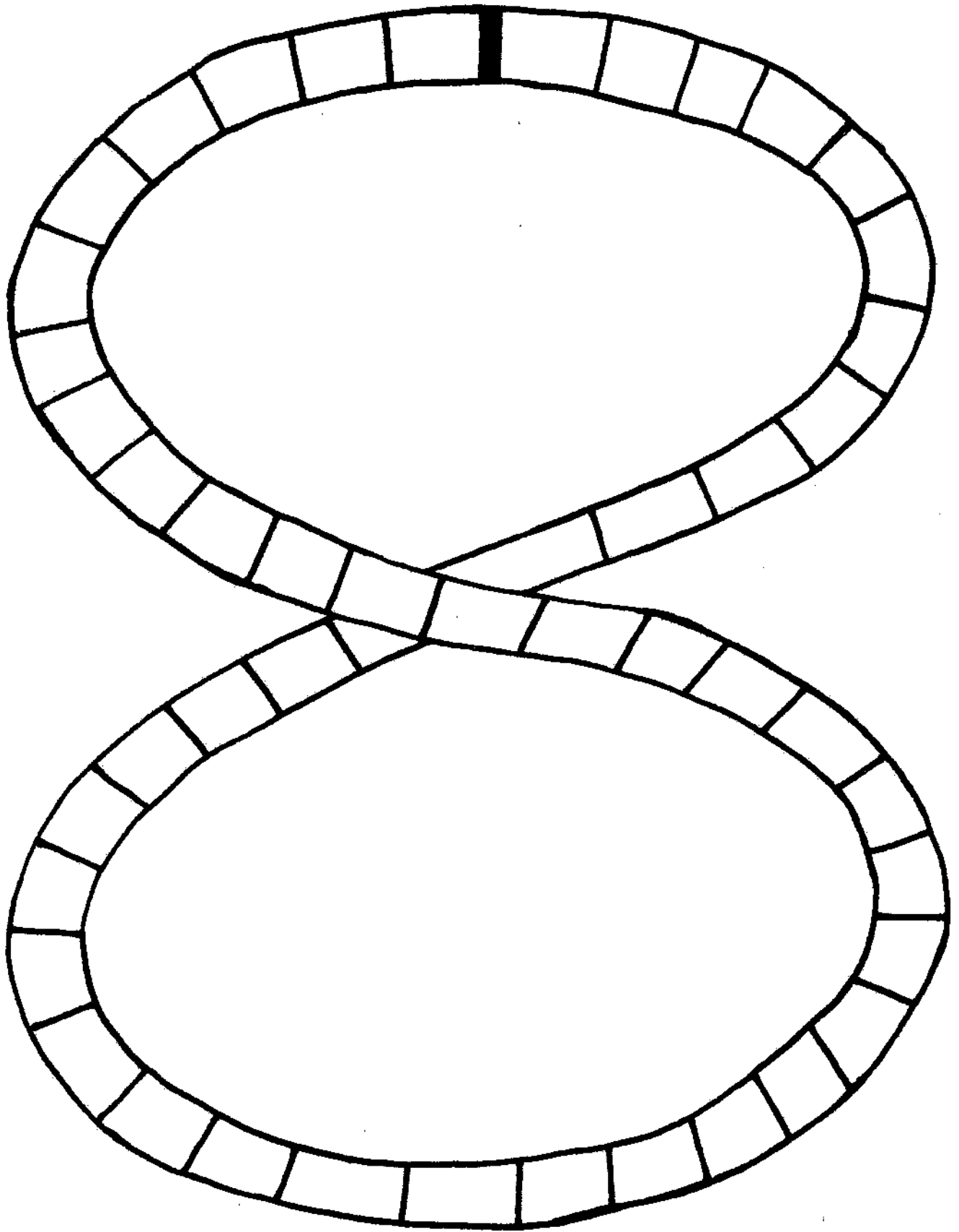
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5

8

0	1	2	3	4		6	7	8	9		11	12	13
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2	3	4	5	6	7	8	9	10	11	12
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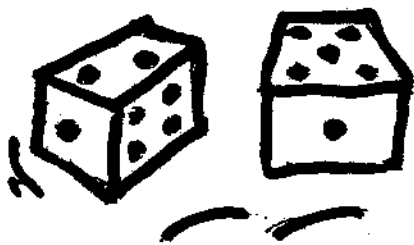
uncover

2	3	4	5	6	7	8	9	10	11	12
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uncover

Black-Out Addition

3	5	7	9
7	10	8	11
2	4	6	8
11	6	12	7



21

01

8

9

4

7

Doubles

cover-up

2

4

6

8

10

12

5	6	7
8	9	10
11	12	13

16	19	22	14	17
24	11	15	20	21
15	23	18	12	19
25	20	21	17	22
13	14	23	16	18



6	8	10	12	14
16	18	20	22	



DOUBLE



DOWN



6	8	10	12	14
16	18	20	22	



Sums

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 20$$

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 17$$

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 15$$

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 12$$

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 7$$

Sums

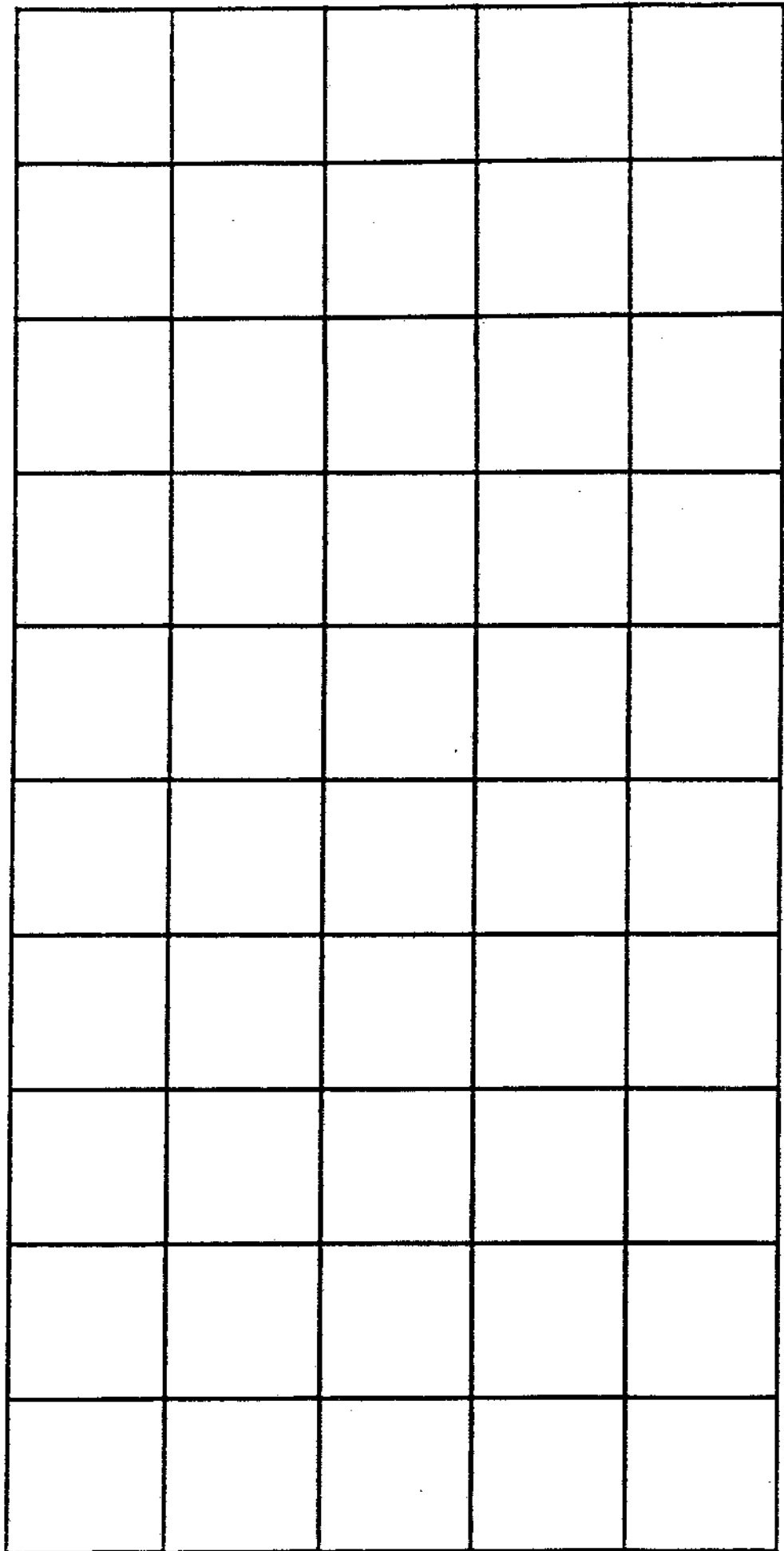
$$\bigcirc + \bigcirc = \bigcirc$$
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$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 17$$

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 15$$

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 12$$

$$\bigcirc + \bigcirc = \bigcirc$$
$$\bigcirc + \bigcirc = 7$$



14	13
12	11

A

9	7
5	3

B

6	10	7	9
2	4	5	3
7	5	6	8
4	9	8	11

11	3	4
7	6	5
8	9	10

3	4	5
8	7	6
9	10	11

4	5	6
9	8	7
10	11	3

5	6	7
10	9	8
11	3	4

6	7	8
11	10	9
3	4	5

7	8	9
3	11	10
4	5	6

8	9	10
4	3	11
5	6	7

9	10	11
5	4	3
6	7	8

10	11	3
6	5	4
7	8	9

