

TRIANGLE  
FLASH  
CARDS

# Triangle Flash

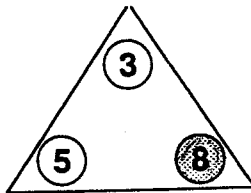
**Objective:** The student will demonstrate an understanding of mathematical relations, functions, and other algebraic concepts.

**Material:** Triangle Flash Cards

**Procedure:** Triangle flash cards are an excellent alternative to regular flash cards for learning the addition and multiplication facts. These cards allow students the opportunity to study addition and subtraction facts or multiplication and division facts at the same time. They also reinforce the idea that addition and subtraction, and multiplication and division are related operations. The flash cards should be duplicated on card stock and laminated to make them last longer. Cut the flash cards into triangles along the lines.

## Additional Flash Cards

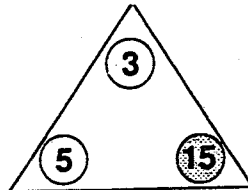
To use the triangle flash cards, place all of the cards in a stack with the number sides face down. The student picks up a card by the corner being sure to cover the underside of one of the corners with his/her thumb. If the two circles that are showing have the same pattern, the student adds the two numbers that are showing and the answer is under his/her thumb. If the two circles that are showing have different patterns, then the student subtracts the smaller number from the larger number and the answer is under his/her thumb. Be sure that you emphasize subtracting the smaller number from the larger number because we are working on basic facts and do not wish to get negative answers. Using the card below as an example, the student could pick up the card with his/her thumb over the 8. Because the two circles that would be showing both have the same background, the student would add the 3 and the 5 and the answer (8) would be under his/her thumb. If the student picked up the card with his/her thumb over the 3, the two remaining circles would have different backgrounds. Therefore, the student would subtract 5 from 8 and the answer (3) would be under his/her thumb.



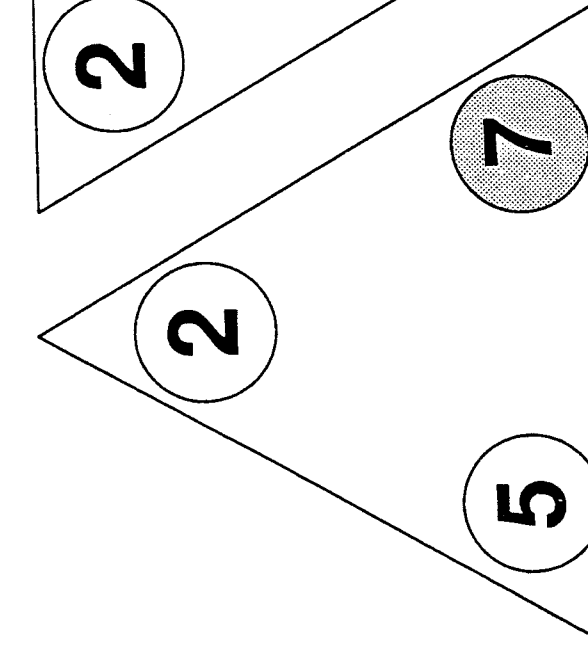
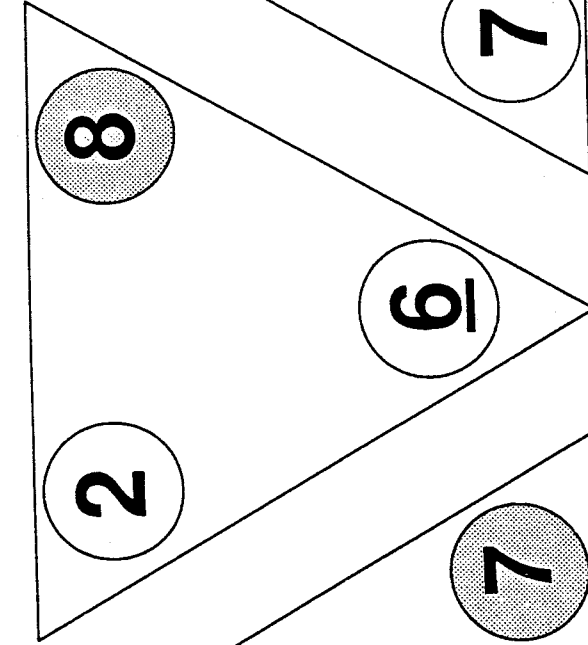
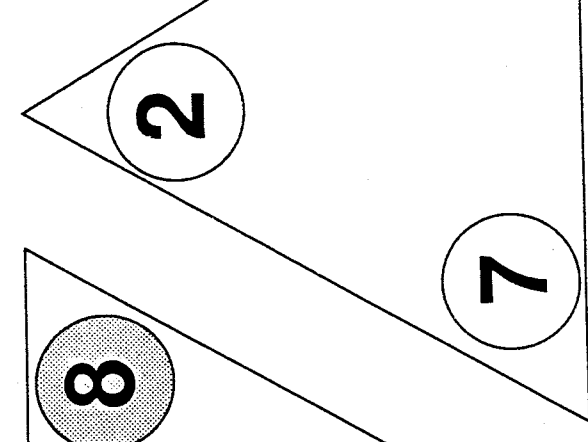
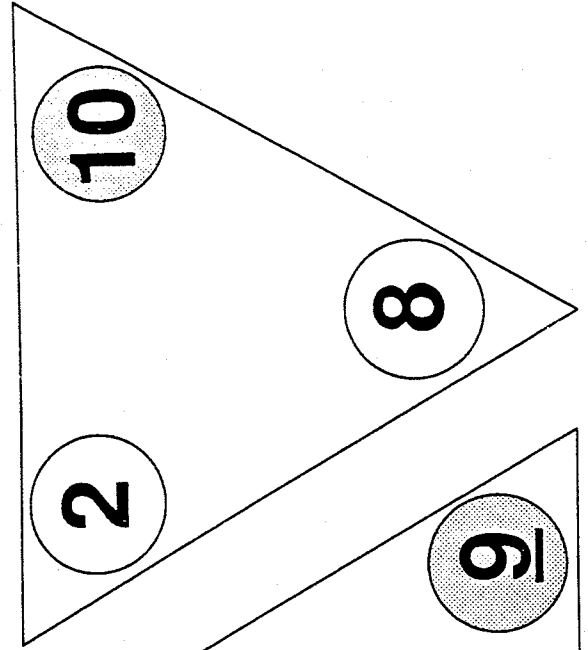
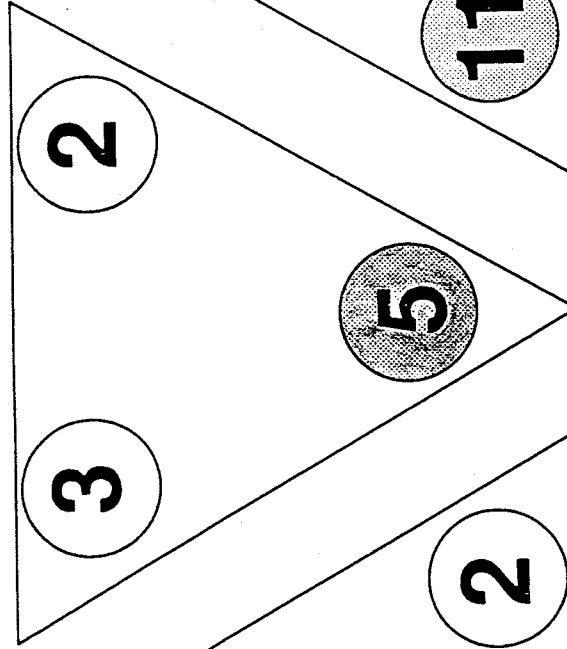
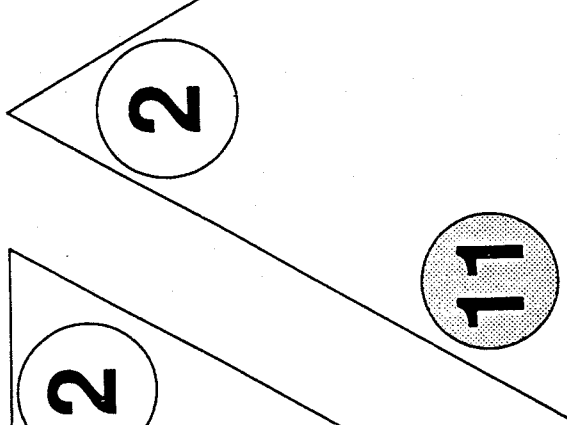
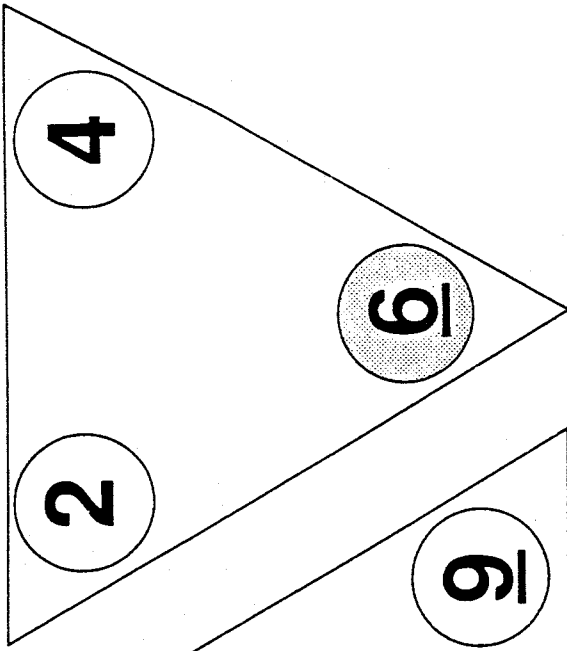
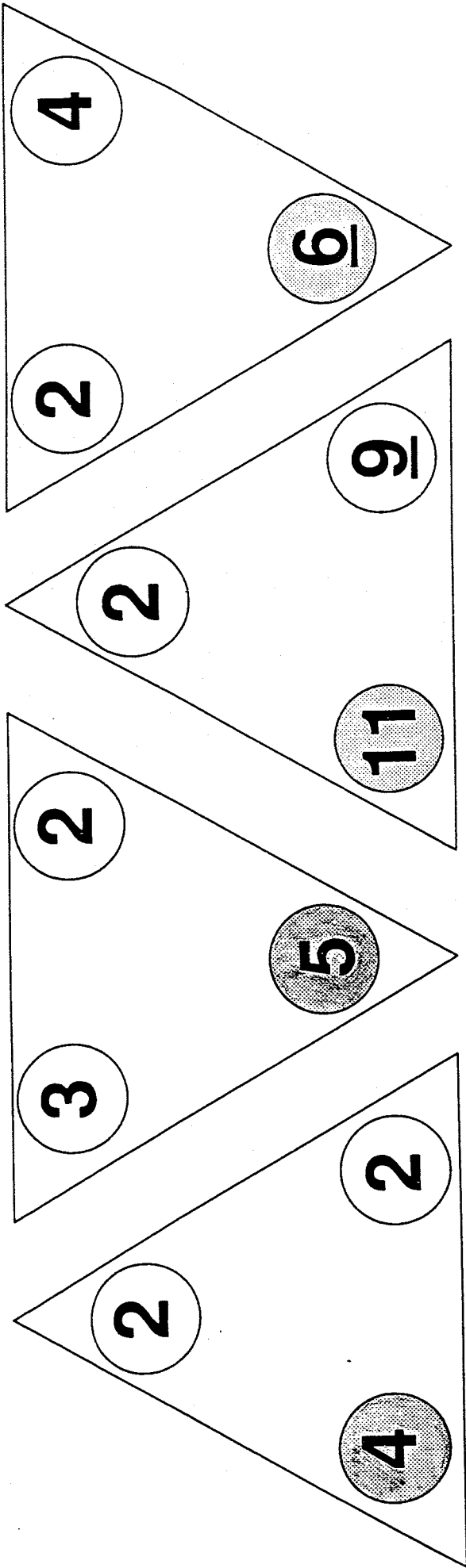
## Multiplication Flash Cards

To use the triangle flash cards, place all of the cards in a stack with the number sides face down. The student picks up a card by the corner being sure to cover the underside of one of the corners with his/her thumb. If the two circles that are showing have the same pattern, the student multiplies the two numbers that are showing and the answer is under his/her thumb. If the two circles that are showing have different patterns, then the student divides the larger number by the smaller number and the answer is under his/her thumb.

Be sure to emphasize dividing the larger number by the smaller number because we are working on basic facts and do not want to get fractional answers. Using the card below as an example, the student could pick up the card with his/her thumb over the 15. Because the two circles that would be showing both have the same background, the student would multiply the 3 and the 5 and the answer (15) would be under his/her thumb. If the student picked up the card with his/her thumb over the 3, the two remaining circles would have different backgrounds. Therefore, the student would divide 15 by 5 and the answer (3) would be under his/her thumb.



This exercise can be turned into a game by having two or more students working together. The first student would pick a card from the deck and give the answer. If the answer is correct, the student keeps the card. If the answer is incorrect, the student places the card at the bottom of the stack. Play continues in order until all of the cards are gone. The student with the most cards wins the game. Students could also place the cards they answer correctly into hexagons. The score could then be reported as the number of hexagons each student has. This will include fractional parts of hexagons because students may not have enough cards to complete their last hexagon.



2 Addition

A vertical chain of five triangles. From top to bottom, the numbers are: 4, 3, 7, 3, 4, 3, 6, 8, 4, 3, 9, 12.

A vertical chain of five triangles. From top to bottom, the numbers are: 11, 3, 8, 3, 10, 7, 9, 6, 3, 3, 8, 5.

3 Addition

A vertical strip of five triangles. From top to bottom, the numbers are: 4, 5, 5, 5, and 13. The numbers 4, 5, and 5 are in white circles, while 13 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of five triangles. From top to bottom, the numbers are: 4, 4, 10, 4, and 5. The numbers 4, 4, and 5 are in white circles, while 10 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of three triangles. From top to bottom, the numbers are: 5, 12, and 7. The numbers 5 and 7 are in white circles, while 12 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of three triangles. From top to bottom, the numbers are: 5, 11, and 6. The numbers 5 and 6 are in white circles, while 11 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of three triangles. From top to bottom, the numbers are: 5, 10, and 9. The numbers 5 and 9 are in white circles, while 10 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of three triangles. From top to bottom, the numbers are: 4, 4, and 7. The numbers 4 and 7 are in white circles, while 4 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of three triangles. From top to bottom, the numbers are: 4, 6, and 9. The numbers 4 and 9 are in white circles, while 6 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of three triangles. From top to bottom, the numbers are: 4, 8, and 12. The numbers 4 and 8 are in white circles, while 12 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

A vertical strip of three triangles. From top to bottom, the numbers are: 4, 11, and 7. The numbers 4 and 7 are in white circles, while 11 is in a shaded circle. The triangles are arranged in a zig-zag pattern.

4 Addition

A vertical sequence of four triangles. Each triangle has two numbers in circles at its base and one number in a shaded circle at its apex. The numbers from top to bottom are: 6, 14, 8, 6, 6, 15, 9, 7, 7, 15, 7, 8.

A vertical sequence of four triangles. Each triangle has two numbers in circles at its base and one number in a shaded circle at its apex. The numbers from top to bottom are: 6, 7, 13, 6, 6, 12, 5, 9, 14, 8, 5, 13.

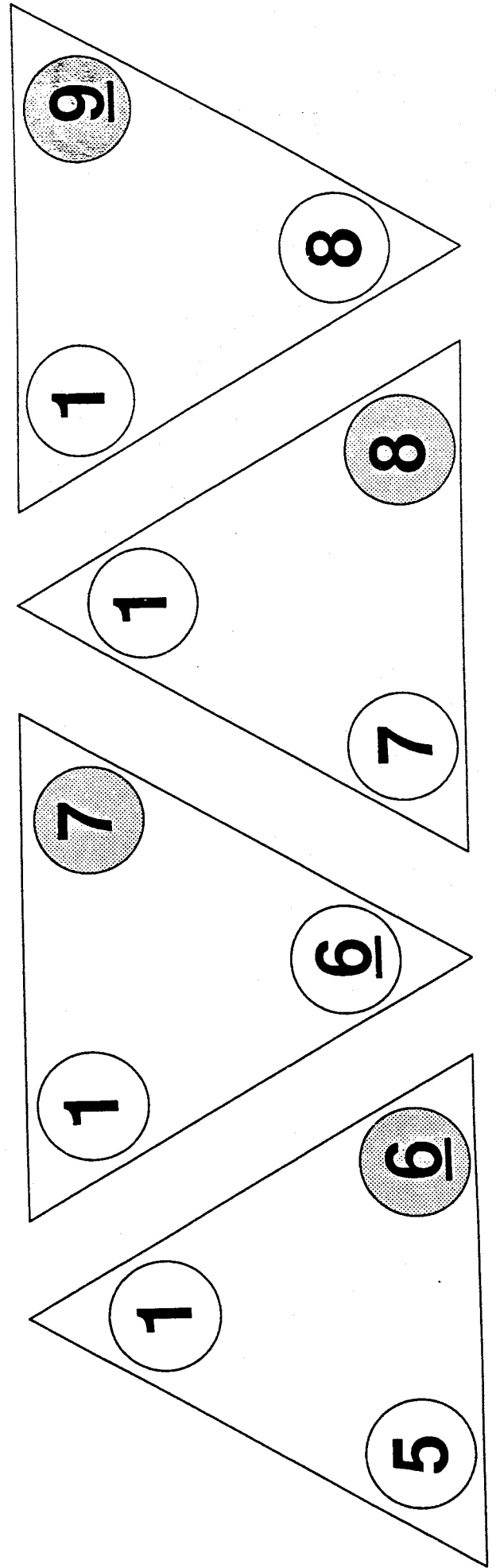
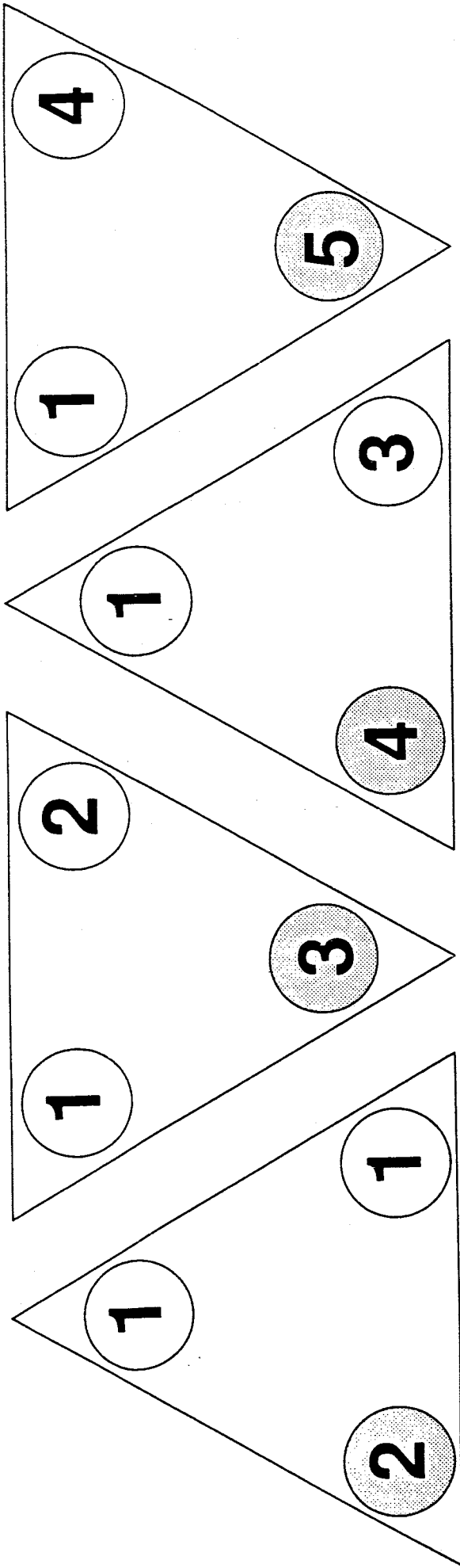
5 Addition

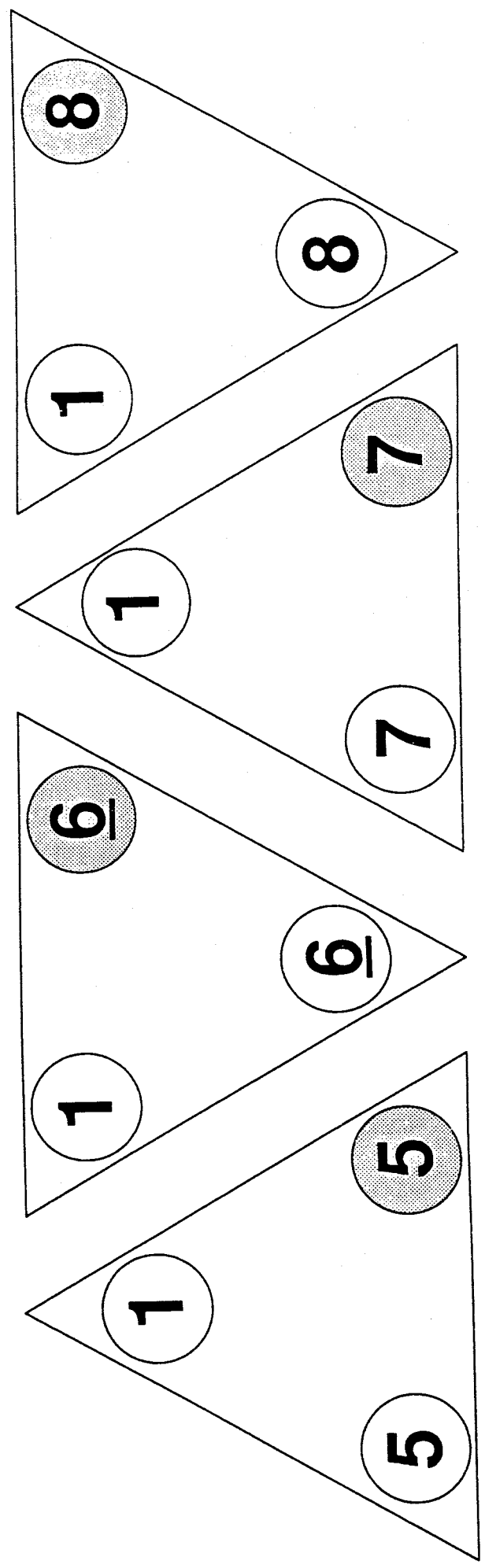
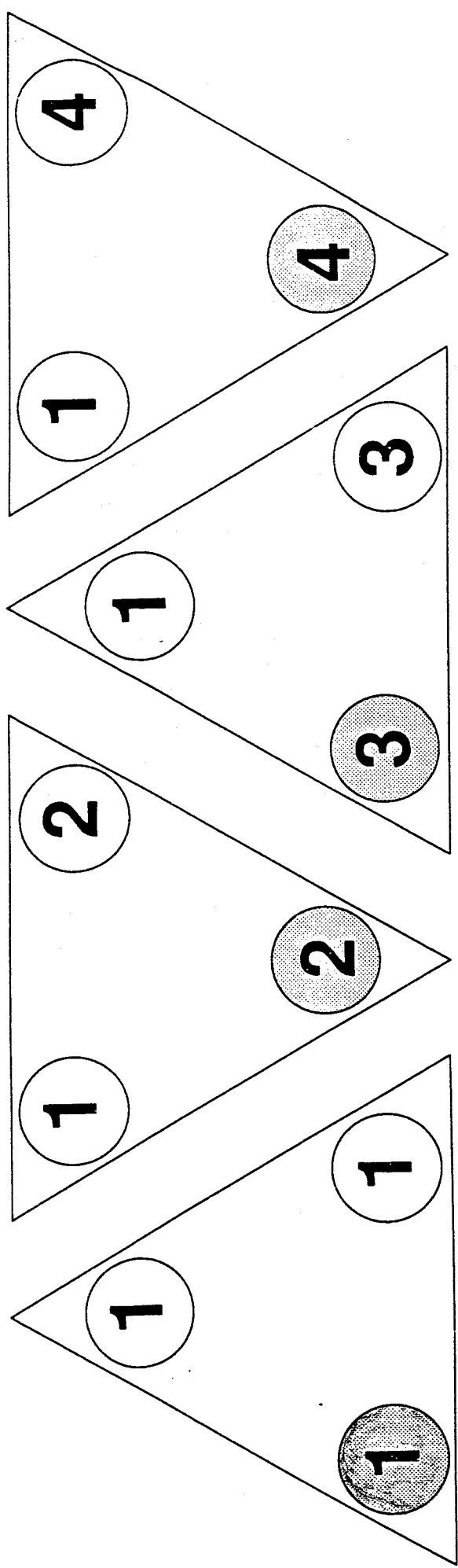
A vertical sequence of five triangles. The top triangle contains a circle with the number 7 and a shaded circle with the number 16. The second triangle contains a circle with the number 8 and a shaded circle with the number 16. The third triangle contains a circle with the number 8 and a shaded circle with the number 17. The fourth triangle contains a circle with the number 8 and a shaded circle with the number 18. The bottom triangle contains a circle with the number 9 and a shaded circle with the number 18.

A vertical sequence of three triangles. The top triangle contains a circle with the number 9 and a shaded circle with the number 10. The middle triangle is empty. The bottom triangle contains a circle with the number 1 and a shaded circle with the number 1.

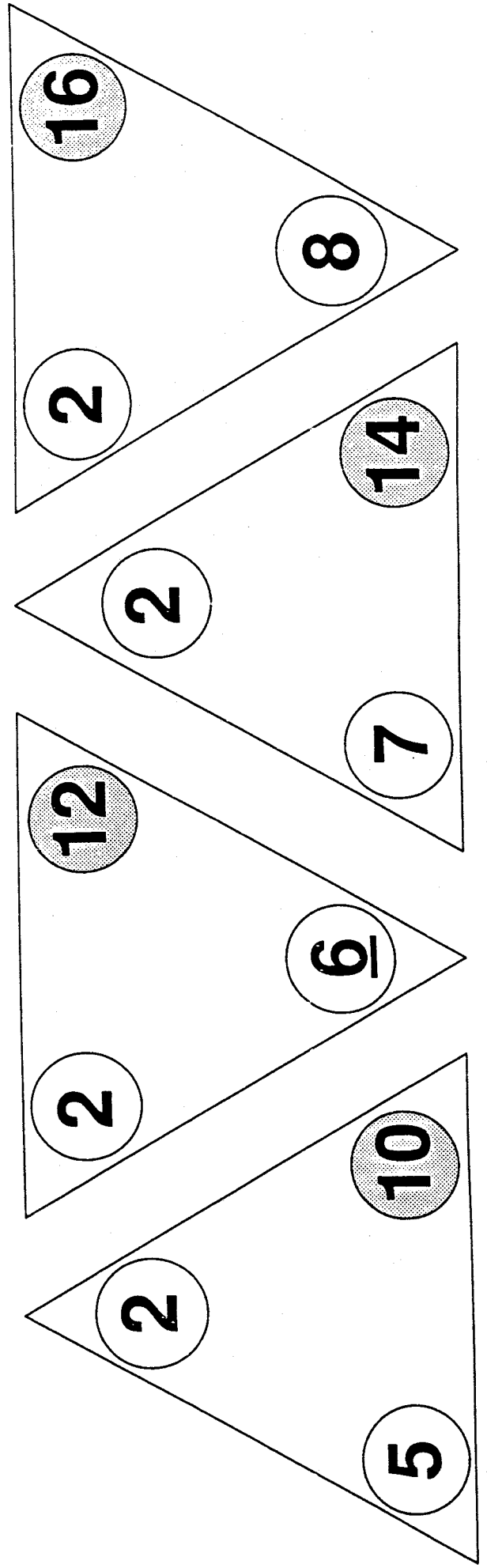
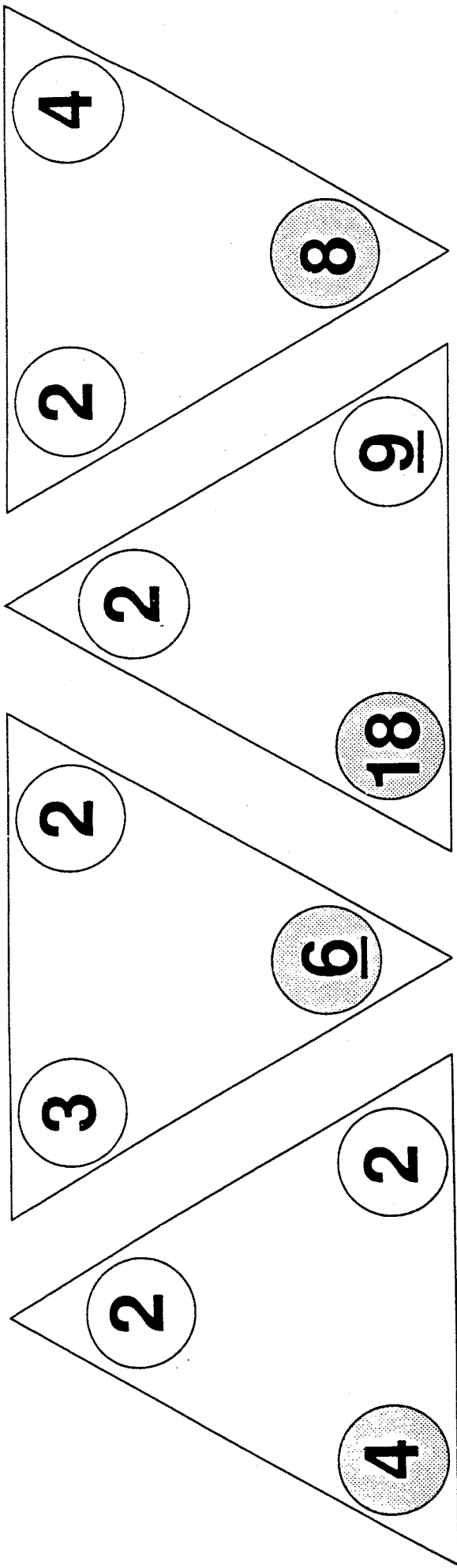


6 Addition





8 Multiplication



9 Multiplication

3 4 12

4 3 12

3 9 27

4 9 36

3 8 24

3 7 21

3 6 18

3 5 15

10 Multiplication

A grid of 10 triangles arranged in two rows of five. Each triangle contains a multiplier, a multiplicand, and a product. The triangles are oriented with their vertices pointing downwards.

4	5	5	5	7
36	25	30	35	
9	5	6		

A grid of 10 triangles arranged in two rows of five. Each triangle contains a multiplier, a multiplicand, and a product. The triangles are oriented with their vertices pointing downwards.

4	4	4	4	8
5	24	7	28	
20	6			

12 Multiplication

A row of four triangles, each containing a multiplication problem and its product. The first triangle has a 7 in a circle at the top vertex and a 63 in a shaded circle at the bottom vertex. The second triangle has an 8 in a circle at the top vertex and a 64 in a shaded circle at the bottom vertex. The third triangle has an 8 in a circle at the top vertex and a 72 in a shaded circle at the bottom vertex. The fourth triangle has a 9 in a circle at the top vertex and an 81 in a shaded circle at the bottom vertex.

A large empty triangle pointing downwards. Below it is a smaller triangle pointing downwards, containing a 9 in a circle at the top vertex, a 9 in a shaded circle at the bottom vertex, and a 1 in a circle at the right vertex.

11 Multiplication

A grid of triangles for multiplication problems. Each triangle contains a multiplier, a multiplicand, and a product.

$\overline{6}$	$\overline{9}$	7	8
48	54	56	
8	49	7	

A grid of triangles for multiplication problems. Each triangle contains a multiplier, a multiplicand, and a product.

$\overline{6}$	$\overline{6}$	5	40
7	36	8	
42	6	45	