♠ ♥ Rules for Card Games ♣ ♦

Go Fishing [A variation of Go Fish]

Number of Players: Three to five players

Mathematical Objective: To add like numbers

Object: To get the highest score

The Deck: A regular deck, with the face cards removed

The Deal: A hand of seven cards is dealt to each player, with the remaining cards placed face down in the center of the table.

The Play: The student to the left of the dealer is the first player, and says to the player on his or her left, "Give me your (any number ace through 10). If the students who are asked have cards in that rank, they are handed to the player. If not, the player is told to "go fishing," that is, to take a card from the pile in the middle of the table. This ends the first player's turn. Play continues around the table.

Scoring: As soon as a player gets all four cards in a rank, he or she places them face down on the table. Then the student adds the four numbers on the cards and records a score. The emptying of one player's hand ends the game. At that point, the students add their scores. The one with the highest score wins that round.

Good Times

Number of Players: Three to four players

Mathematical Objective: To multiply single-digit numbers

Object: To acquire the most cards

The Deck: A regular deck of playing cards, with aces and face cards removed

The Deal: The cards are placed face down in a 6 x 6 array. The rest of the cards are out of play for the round.

The Play: The first player turns up two cards in the array. The player then multiplies the numbers showing. If the answer is correct, he or she keeps both cards. If it is not, the player turns the cards face down, and the play moves to the left. [The correctness may be checked by another player or with a calculator of a multiplication table.]

Scoring: When the array is empty, the students count their cards. The student with the most cards wins that round.

Climb the Ladder

Number of Players: Four players

Mathematical Objective: To multiply single-digit numbers

Object: To gain points by generating a product greater than a given number

The Deck: A regular deck of playing cards with the face cards removed

The Deal: The cards are shuffled and each player is dealt eight cards. The remaining cards make up the draw pile.

The Play: A card from the draw pile is turned up, and the number is recorded as the first rung of the ladder. The card is returned to the middle of the draw pile.

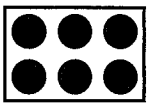
The first player turns up the top card on the draw pile. Then he or she chooses a card from his or her hand so that the product of the number on that card and the turned up card is greater than the first rung. If the product is greater, it is recorded as the next rung, and the player receives a point. If it is not, it is the next player's turn. The second player turns up the next card on the draw pile and chooses a card from his or her hand so that, if possible, the product will be greater than the last rung. Play continues until all players have had four turns.

Scoring: When four turns have been played, the students add their scores. The one with the most points wins that round.

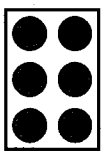
Multiplication – turnarounds

We can make turnarounds when we multiply.

Look at this array.



We can turn this around to look like:



2 rows of 3 is 6

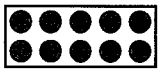
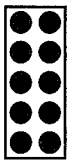
2 × 3 = 6

Now we have 3 rows of 2.
There are still 6 counters.

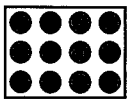
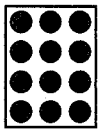
3 × 2 = 6

Turnarounds help us learn our multiplication facts. If we know 2 × 3 we also know 3 × 2. They are both ways of making 6.

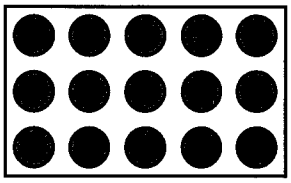
1 Look at the arrays and their turnarounds. Write the facts to match.

a  2 × 5 = 10  5 × ☐ = ☐

b  4 × ☐ = ☐  ☐ × ☐ = ☐

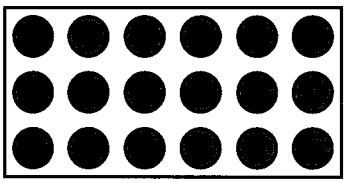
c  ☐ × ☐ = ☐  ☐ × ☐ = ☐

2 Can you turn these arrays around in your head? Write both facts.

a 

☐ × ☐ = ☐

☐ × ☐ = ☐

b 

☐ × ☐ = ☐

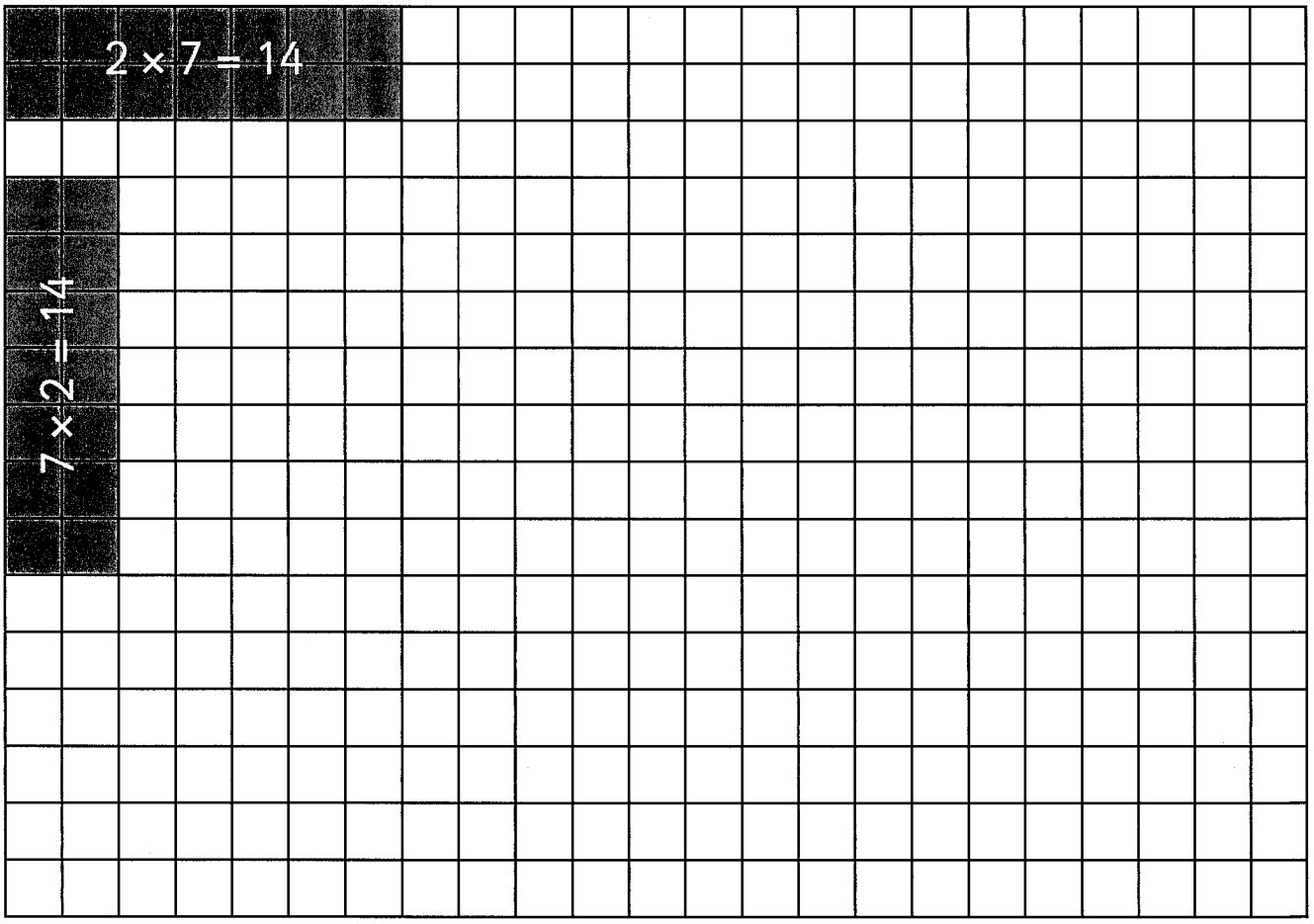
☐ × ☐ = ☐

Multiplication – turnarounds

You will need:  a partner  pencils  10 counters

What to do:

Take turns colouring squares on the grid to make an array. Write the number fact in the squares. Ask your partner to colour the matching turnaround and say it loud. If they can do so, give them a counter. Play until you have used all 10 counters.



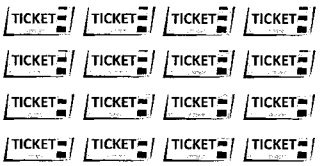
What to do next:

Are there any number facts you can't make turnarounds for? Why do you think this is so?

Division – sharing (partition)

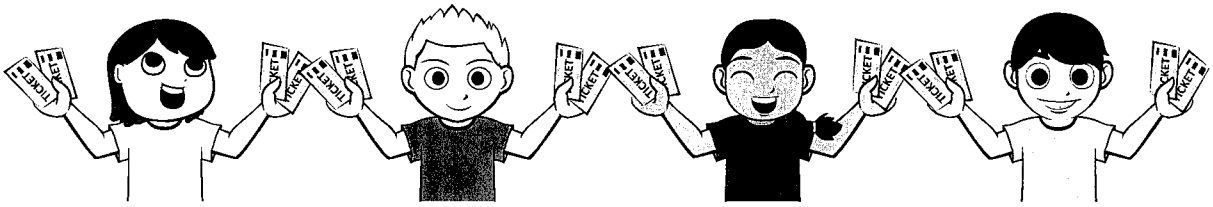
When we share things into groups evenly, every group is the same or **equal**. We call this process **division**.

Here are **16** show ride tickets.



We want to share them between **4** children.

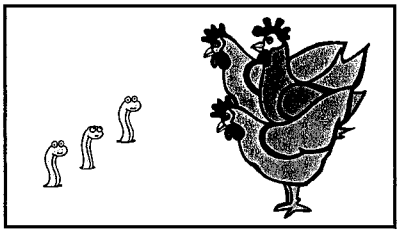
If we share the tickets out evenly, every child gets 4 tickets. Yay!



We call these **fair shares** because each share is equal.

1 Look at these shares. Are they fair? ✓ the fair shares and ✗ the ones that are not fair.

a



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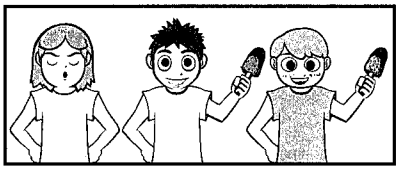

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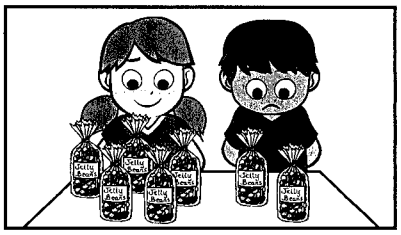

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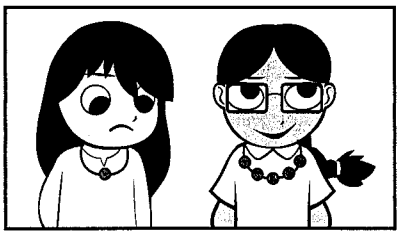
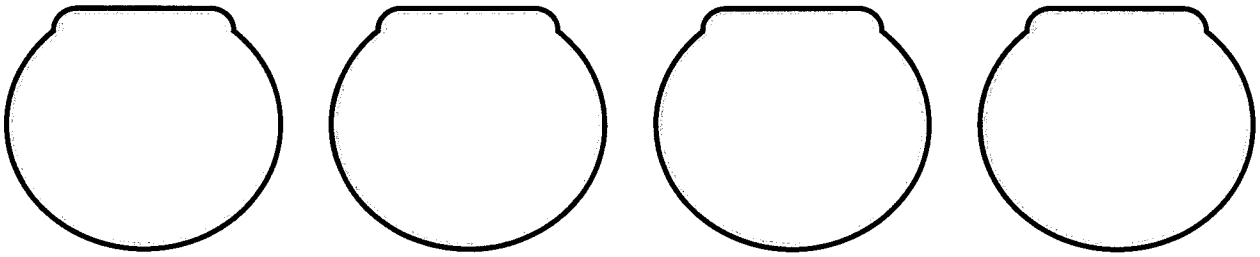


2 Draw 16 fish, sharing them between the 4 bowls. Make sure each bowl has the same amount of fish.

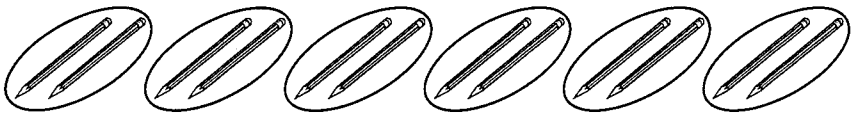


Division – the ÷ symbol

+ means add, **–** means subtract, **×** means multiply.

What is the sign for division or sharing? **÷**

12 pencils are shared between 6 people.

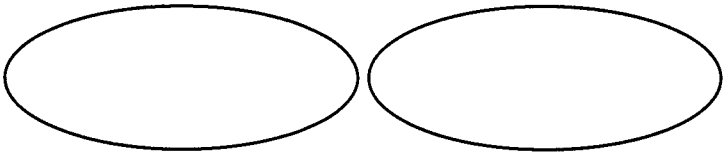


Each person gets 2 pencils.

As a number fact, we write this as **12 ÷ 6 = 2**

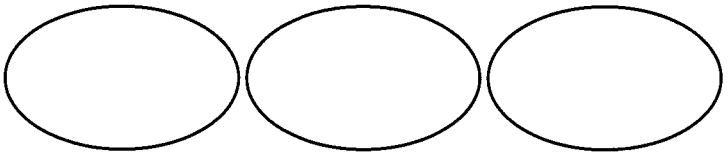
1 Use tally marks or draw pictures to help you solve these problems. Finish the matching number facts.

a 10 apples shared between 2 people is ☐.



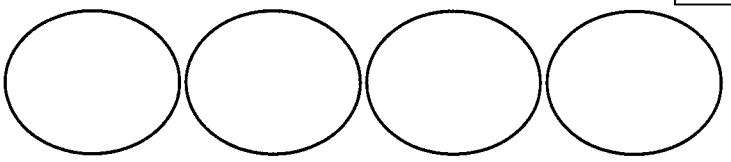
10 ÷ 2 = ☐

b 12 bananas shared between 3 monkeys is ☐.



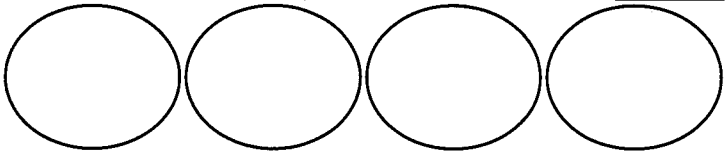
12 ÷ 3 = ☐

c 16 berries shared between 4 birds is ☐.



16 ÷ ☐ = ☐

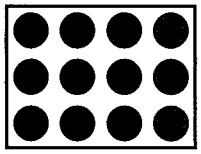
d 28 fish shared between 4 seals is ☐.



☐ ÷ ☐ = ☐

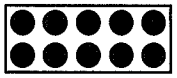
Division – relating multiplication and division

We can use the same arrays to make multiplication and division facts. This array shows:

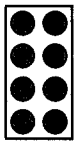
3 rows of 4 is 12  12 counters divided into 3 rows is 4

3 × 4 = 12 AND **12 ÷ 3 = 4**

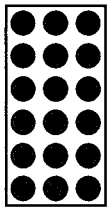
1 Use the arrays to finish the number statements and facts.

a 2 rows of 5 is ☐  10 divided into 2 rows is ☐

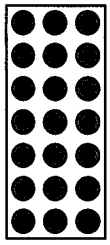
☐ × ☐ = ☐ ☐ ÷ ☐ = ☐

b 4 rows of 2 is ☐  ☐ divided into ☐ rows is ☐

☐ × ☐ = ☐ ☐ ÷ ☐ = ☐

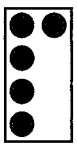
c ☐ × ☐ = ☐ 

☐ ÷ ☐ = ☐

d ☐ × ☐ = ☐ 

☐ ÷ ☐ = ☐

2 Now you can only see part of the arrays. Can you still finish the facts?

a  4 × ☐ = ☐

☐ ÷ ☐ = ☐

b  ☐ × 5 = ☐

☐ ÷ ☐ = ☐

Division – relating multiplication and division

We can use known multiplication facts to help us solve division problems. Number patterns can also help us.

10 ÷ 2 = ?

We know that **5 × 2 = 10** so **10 ÷ 2 = 5**

1 Use known multiplication facts (or counters) to help you finish these division facts.

a 1 × 2 = ☐

☐ ÷ 1 = ☐

b 2 × 2 = ☐

☐ ÷ 2 = ☐

c 4 × 2 = ☐

☐ ÷ ☐ = ☐

d 5 × 2 = ☐

☐ ÷ ☐ = ☐

2 Now use your understanding of number patterns to finish these.

a 10 × 2 = ☐

20 ÷ 10 = ☐

b 20 × 2 = ☐

☐ ÷ 20 = ☐

c 40 × 2 = ☐

☐ ÷ ☐ = ☐

d 50 × 2 = ☐

☐ ÷ ☐ = ☐

Wolf and Rabbit

Wolf and Rabbit: an entertaining arithmetic drill. Practice the four arithmetic operations: addition, subtraction, multiplication and division.

http://www.cut-the-knot.org/Games/WolfRabbit.shtml