

Multiplication and Division

The accompanying games and activities are presented sequenced from basic to more challenging. Multiplication games are in the left hand column, division in the right with various multiple skills activities toward the bottom of the list.

British Connections Games that come from across the ocean feature a hint of Englishmen's language. Consider it a virtual trip. The vocabulary is slightly different - British pounds symbolized by '£' rather than American dollars, '\$' and gas and other liquid products sold in liters rather than quarts and gallons.

Offline exercises may include **concentration** with fact cards. Make two sets in 2 contrasting colors. For beginners, start with a limited number of facts. For more skillful students, match division with multiplication facts.

Use a 1/2 inch graph paper to make a multiplication matrix and allow youngsters to take turns identifying all the multiples of a target digit.

Basic Beginnings

This program introduced the concept of multiplication as a process. **Follow-up:** worksheets with sets that students label with the correct equation.



3 packs of puppies
4 puppies in each pack
How many all together? $4 \times 3 = 12$

Memory Multiplication

Concentration style practice.

Follow-up: Make a set of cards with problems and a second set with responses.

Step by Step Multiplication

Step by step multiplication of two digit by one digit numbers, an instructional exercise.

Place Value Darts

Throw your darts to respond to problems.



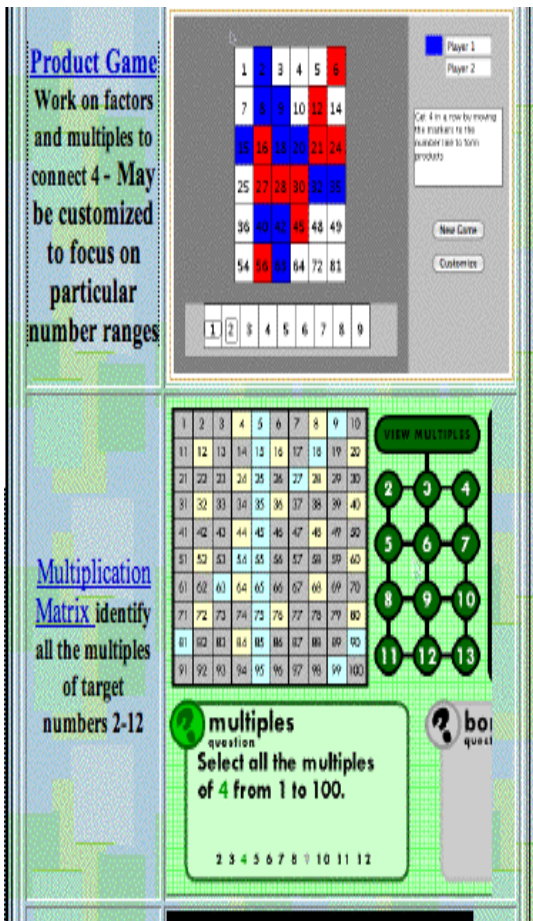
Basic Beginnings

Mystery Picture Multiplication

Memory Picture Multiplication

Step by Step Multiplication
Two Digit by one digit problems

Place Value Darts
To throw those darts, you need to pick the correct solution to multiplication and division problems



Product Game

Chose two digits that make a product displayed in the number grid. Based on Connect Four, the object of this game is to construct a series of four multiplication equations before your opponent does.

Follow-up: Make a grid and have kids play offline or let them construct their own grid using specific multiplication families. Or try division families.

Multiplication Matrix

Identify all the multiples of target numbers. Learn how different fact families overlap.

Division Machine

Fact exercise in division at three levels.

Division Factory

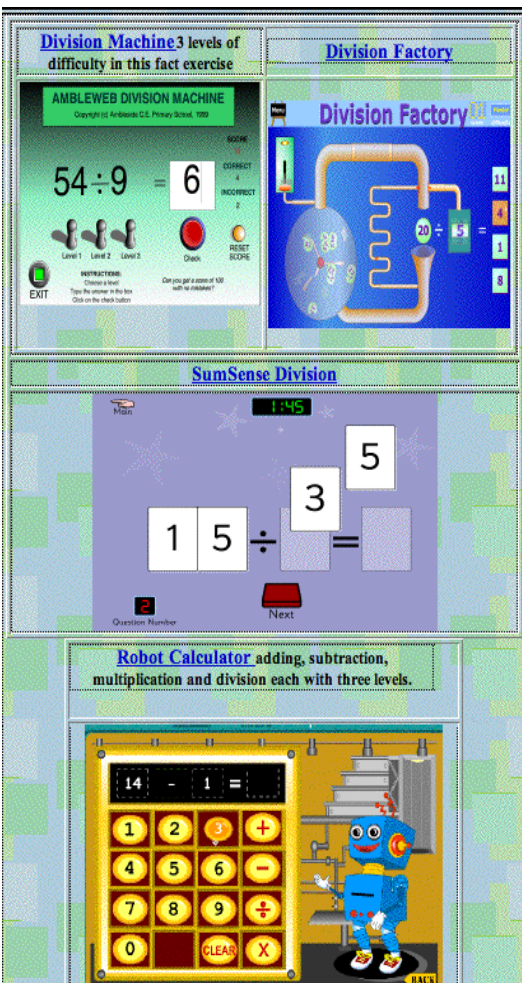
Plug in the correct numerals to complete manufacturing process.

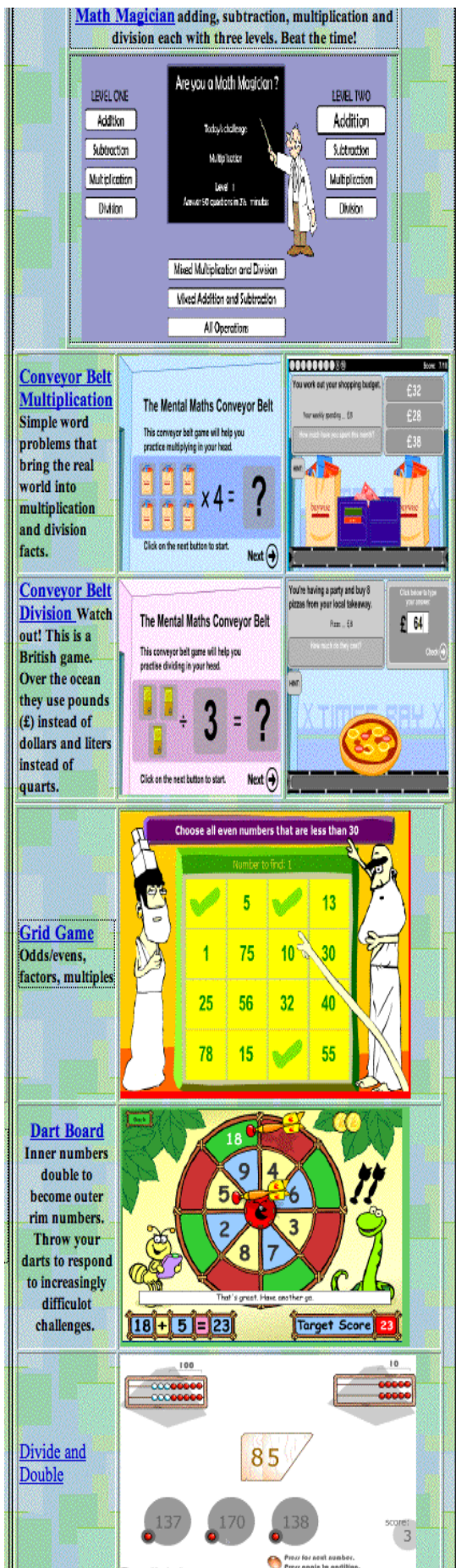
SumSense Division

You've got 4 single digits. How fast can you arrange them into an equation?

Robot Calculator

Addition, subtraction, multiplication and division with three levels of challenges.





Math Magician

Lots of ways to exercise your number fact generator.

Conveyor Belt Multiplication Conveyor Belt Division

Practice skills by solving practical problems, reading the challenge and choosing the answer from a group of three potential responses or typing in your own.

This is a British game so you'll have to be a bit of a Brit yourself, using pounds (£) for dollars and liters for quarts and translating some unfamiliar vocabulary.

Follow-up: Have students write and illustrate their own problems. Enhance the activities with stickers or with a perusal of the day's market advertisements.

A sample of stickers is offered on a subsequent page.

Grid Game

Find the odds or evens, the factors or multiples that those ancient Egyptians present in this grid.

Dart Broad Concentric Circles

The inner circle of numbers is surrounded by hidden doubles in the outer circles to make the target number.

Follow-up: Blackline follows for students to make their own double or triple circles.

Divide and Double

A little Abacus Action

To discover the double, you may use the abacus, then chose from the three potential responses

Multiplication Math Grid

Have students take turns claiming squares. They can take turns roll a single a pair of dice, then color in the answer in their chosen color. After two rounds of unsolvable questions, the game is over. The winner is the player with the most colored squares.

This game will work much better with polyhedron dice that have 9 sides or limit your grid to 6 digit fact families. Sample empty grids are printed on subsequent pages.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Doubling Up

^a For a two concentric ring circle, put one digit numbers in the center circle. Practice facts by multiplying each by your target number family

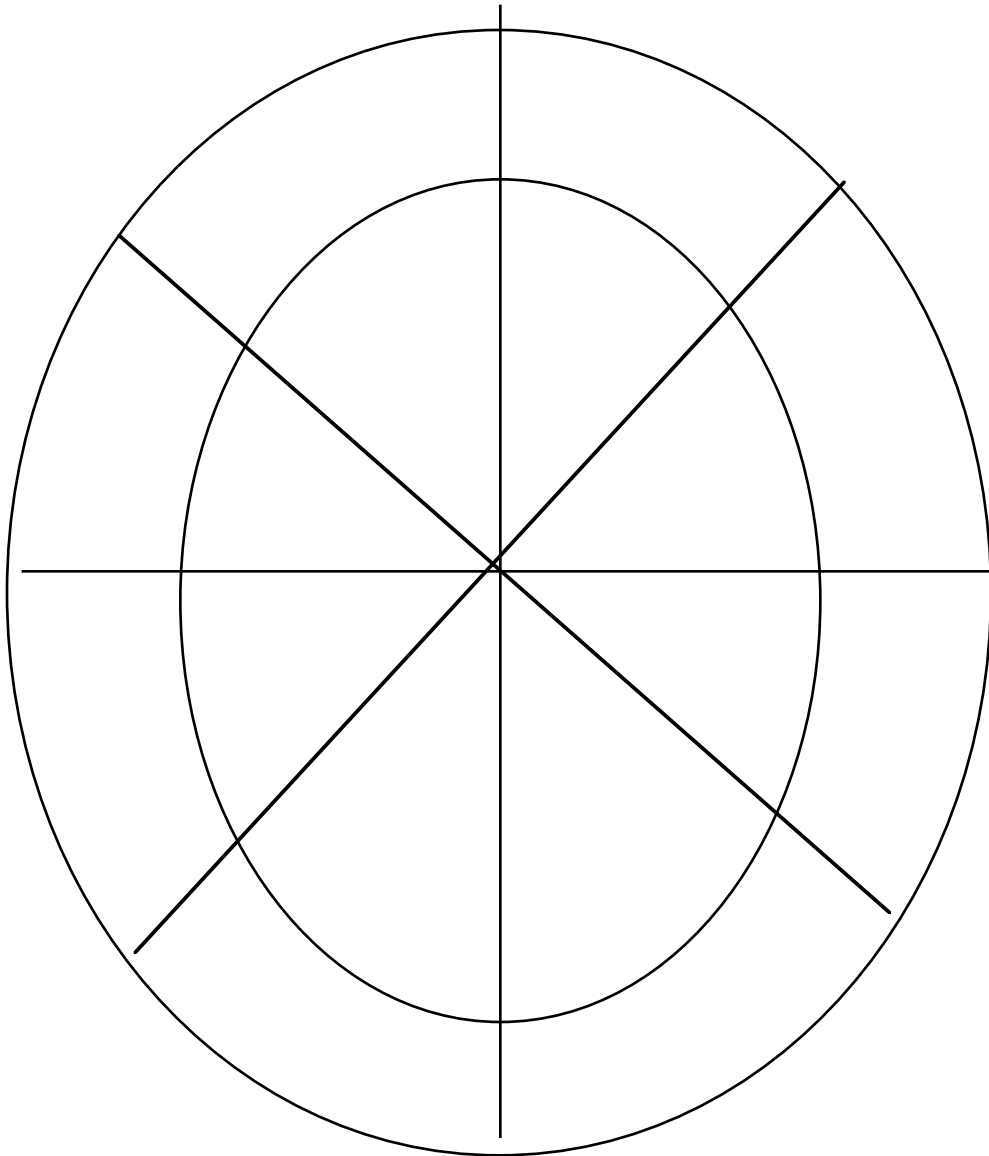
- Try squares and cubes of numbers (2 in the inner circle, 4 in the middle circle and 8 in the outer one.

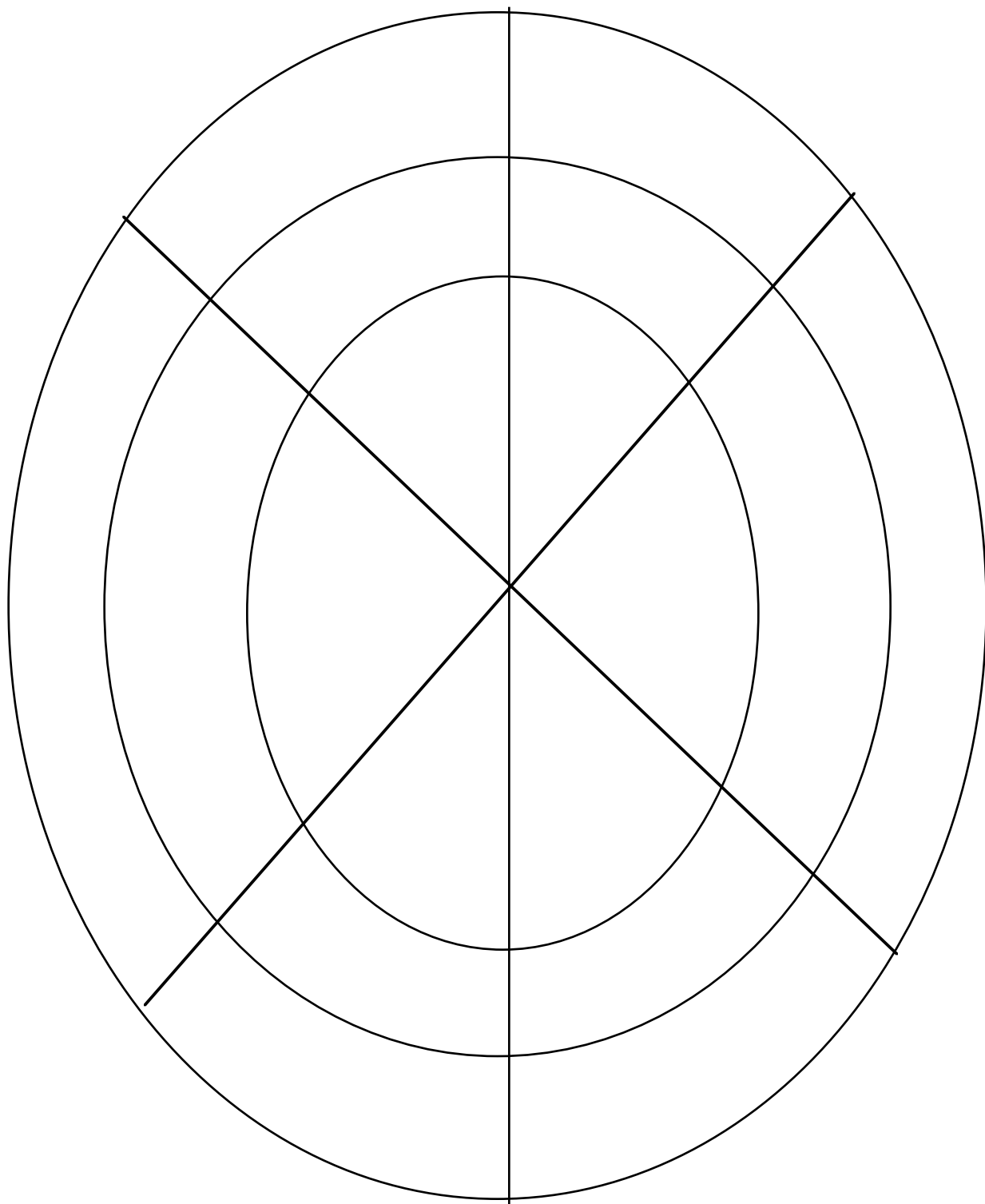
- Go backwards with larger

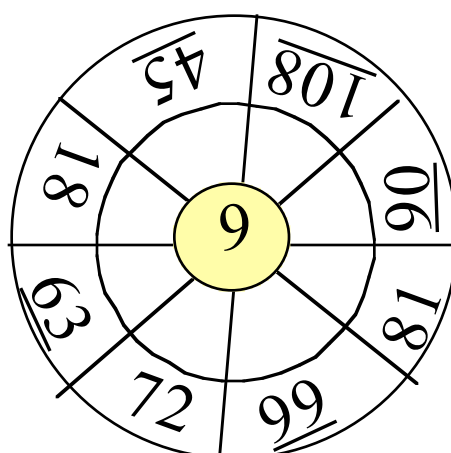
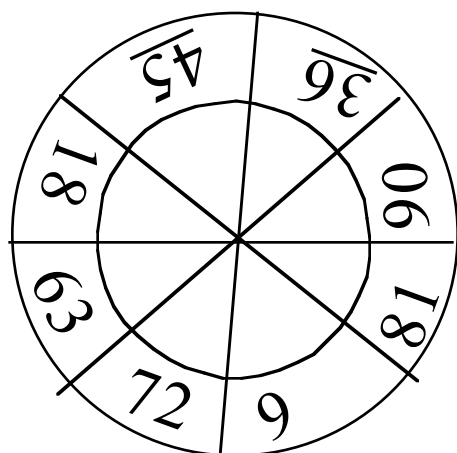
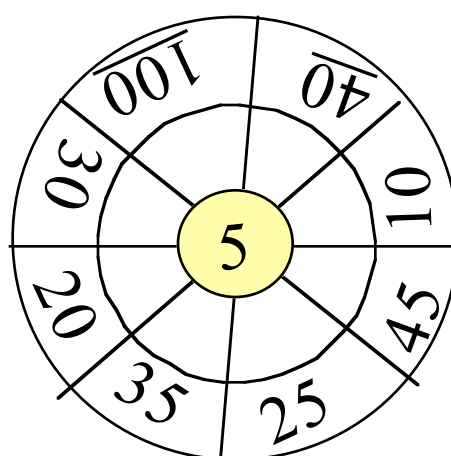
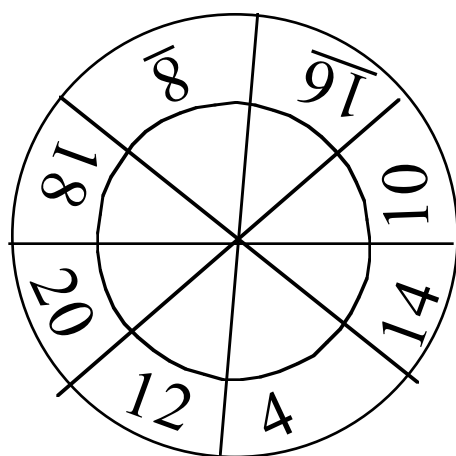
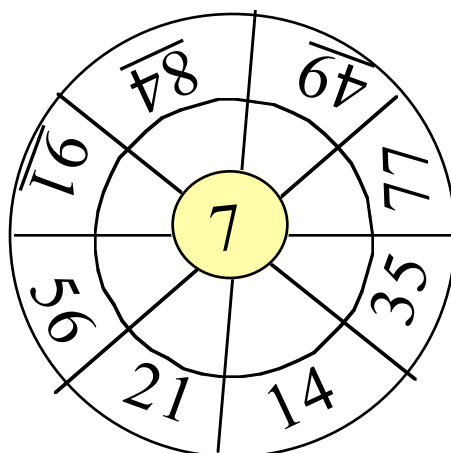
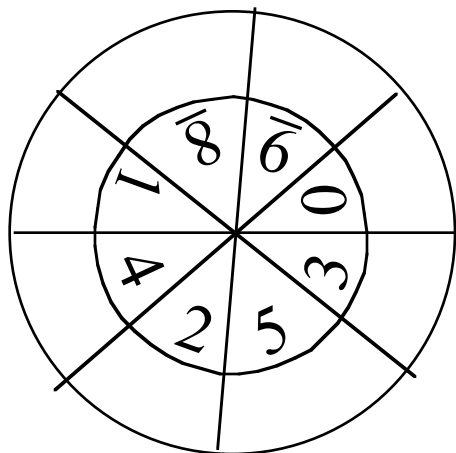
numbers on the outer

circle and divide by

a target number.







Conveyor Belt games challenge players to apply math skills to real life problems. Following some practice, students may design their own math stories. These images are provided to serve as inspiration points. For example, if each cat eats 2 pounds of food a day, how much food do we need for 6 cats? If we bought 2 five pound bags, do we have enough food? Illustrate your story.

