

# 1 TO 6 TIMES 2

**TO PLAY THIS GAME YOU NEED:**
 x 2

 x 1

 x 10

 x 10

**AIM:** To have the most counters left in the circles after **10 rounds**.

**HOW TO PLAY:** Pick a set of coloured counters each and decide who plays first. Players take turns. On your turn, roll the die and multiply the number you roll by **2**. Place a counter in the circle that contains your answer. If there is already a counter in the circle, **replace** it with your counter. Play a total of 10 rounds (10 turns each) and then count how many of your counters are left in the circles.

A counter placed in any of these circles **replaces** any counter that is already there.



**8**

$$\begin{array}{r} 4 \\ + 4 \\ \hline \end{array}$$

• • • •

• • • •

$2+2+2+2$

**6**

$$\begin{array}{r} 3 \\ + 3 \\ \hline \end{array}$$

• • •

• • •

$2+2+2$

**10**

$$\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$$

• • • • •

• • • • •

$2+2+2+2+2$

**2**

$$\begin{array}{r} 1 \\ + 1 \\ \hline \end{array}$$

•

•

$2$

**12**

$$\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$$

• • • • • •

• • • • • •

$2+2+2+2+2+2$

**4**

$$\begin{array}{r} 2 \\ + 2 \\ \hline \end{array}$$

• •

• •

$2+2$

## Dig's Questions:

1.

What is the missing number:  
 $\_\times 2 = 2 \times 4$ ?

2.

How many wheels do  
6 bicycles have  
in total?



## Challenge:

Complete this grid with numbers so that each vertical and horizontal number sentence is correct:

4	+		=	6
x		x		-
2	x		=	
=		=		=
	÷		=	4

Make up your own grid like this to challenge a friend.

## Dig's Tips:

“Describe the arrangements of dots in the circles above using addition and multiplication.  
For example, for the circle labelled “6” the arrangement of dots can be described as:  
3 lots of 2,  $2+2+2$ ,  $3 \times 2$ ,  
2 groups of 3,  $3+3$ , or  $2 \times 3$ .  
Describe the other arrangements of dots in the same way.”



# DIVIDING BY 2, 3, 5 & 10 (no.1)

## TO PLAY THIS GAME YOU NEED:

 x2

 x2

 Score Sheet

**AIM:** To achieve a score nearest to 30.

**HOW TO PLAY:** Create a score sheet on a separate sheet of paper and decide which grid you are going to play on. Both players must start from a score of 0 for all grids. Take turns to join any 2 consecutive dots with a line (vertically or horizontally), in order to make boxes around the numbers.

When your line completes a box around a number then you must divide that number by **2 or 3** for Grid 1; **3 or 5** for Grid 2; **3 or 10** for Grid 3 and **2, 3, 5 or 10** for Grid 4. Add the answer to your score. The game continues until all numbers in the grid are boxed.

GRID 1: DIVIDE BY 2 OR 3

12	2	10	8
4	15	9	3
6	12	18	6
18	15	8	12

Remember that you are trying to achieve a score as near to 30 as you can.



GRID 2: DIVIDE BY 3 OR 5

25	20	30	6
10	12	3	18
15	9	5	15
12	25	9	20

GRID 3: DIVIDE BY 3 OR 10

6	40	10	50
60	18	30	20
3	9	15	12
30	10	6	18

GRID 4: DIVIDE BY 2, 3, 5 OR 10

12	6	20	30
9	40	8	15
3	15	2	18
10	25	5	4

## Dig's Questions:

1.

What is the missing number:  
 $\_ \div 3 = 12 \div 2$ ?

2.

What is the missing number:  
 $20 \div \_ = 12 \div 3$



## Challenge:

Work out which numbers you need to box in order to achieve an exact score of 30 on Grid 1. Do the same for the other grids.

## Dig's Tips:

“Think carefully about which number to divide your boxed numbers by. Remember, the winner has the score closest to 30 on each grid. You can print a score sheet from the “Resources” section of [dig1t.com](http://dig1t.com) to help you keep score.”



# 1 TO 7 TIMES 4

## TO PLAY THIS GAME YOU NEED:

 x2

 1 to 7

 x2


**AIM:** To achieve the highest score after 5 rounds.



Use a pencil so you can erase and play again.

**HOW TO PLAY:** Decide whether you are player 1 or 2. Shuffle the number cards and place them face down in a pile. Starting with Round 1 on your grid, take turns to pick a card from the top of the pile and write the number in the "Card No." column. Multiply this number by 4 and write the answer in the "Answer" column.

The "Scoring Rule" decides if you score any points, e.g. if your answer to Round 1 is less than 17, you score 1 point. Circle your points in the "Score" column. Work through the 5 rounds and then work out your total score by adding up your points. If you run out of number cards, reshuffle the used cards.

### PLAYER 1:

Round	Card No.	x	4	=	Answer	Scoring Rule	Score
1		x	4	=		Answer < 17	0 or 1
2		x	4	=		Answer ≥ 16	0 or 1
3		x	4	=		12 ≤ Answer < 24	0 or 2
4		x	4	=		4 < Answer ≤ 16	0 or 2
5		x	4	=		Answer is a multiple of 3	0 or 3

Only use number cards 1 to 7.



### PLAYER 2:

Round	Card No.	x	4	=	Answer	Scoring Rule	Score
1		x	4	=		Answer < 17	0 or 1
2		x	4	=		Answer ≥ 16	0 or 1
3		x	4	=		12 ≤ Answer < 24	0 or 2
4		x	4	=		4 < Answer ≤ 16	0 or 2
5		x	4	=		Answer is a multiple of 3	0 or 3

## Dig's Questions:

1.

What is the missing number: 12, 16, 20, \_\_, 28?

2.

I draw seven rectangles. How many sides have I drawn in total?



## Challenge:

- The sum of two numbers is 10. One of the numbers is 2 more than the other number. What is the product of the two numbers?
- One more than the square of a number is 17. What is the number?

Make up your own questions similar to these to challenge a friend.

## Dig's Tips:

“This game uses the symbols < (less than), < (less than or equal to) and ≥ (greater than or equal to).

12 ≤ Answer < 24 means “the answer is greater than or equal to 12 but less than 24.”

Discuss which numbers you would need to pick in order to score points for each round in this game.”



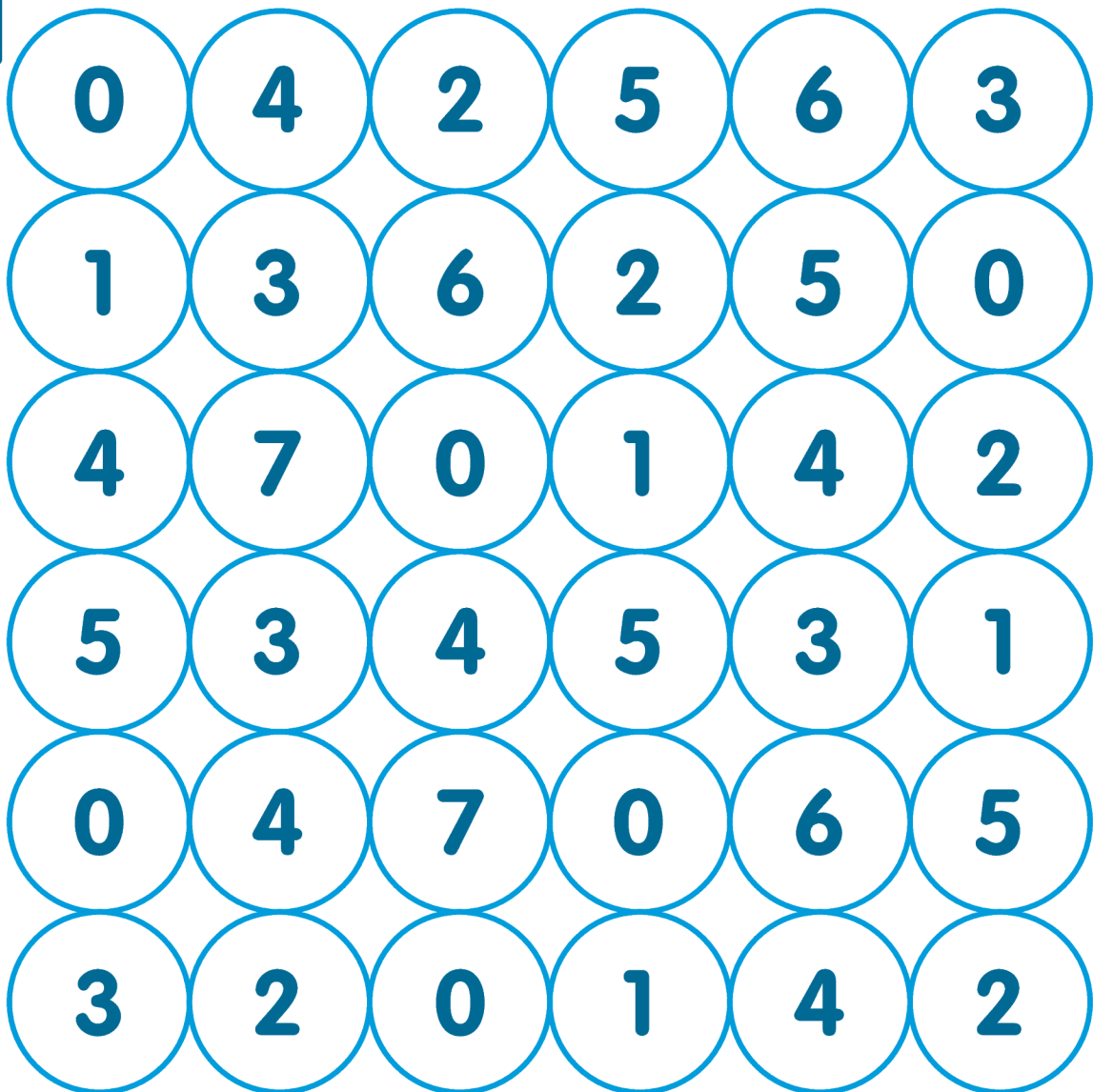
# DIVIDING BY 6 & 8 (no.1)

TO PLAY THIS GAME YOU NEED:     x 2     x 18     x 18     no. cards 0 to 6

**AIM:** To be the first to get 4 of your coloured counters in a row - horizontally, vertically or diagonally.

**HOW TO PLAY:** Pick a set of coloured counters and decide who plays first. Shuffle the number cards and place them face down in a pile. Players take turns. On your turn, take two number cards from the top of the pile to make a 2-digit number. Divide that 2-digit number by **6 or 8**. Cover the number on the grid that is the remainder in your answer with one of your coloured counters. If your remainder number is already covered, your turn ends. If you run out of number cards, reshuffle the used cards.

Only use number cards 0 to 6.



## Dig's Questions:

1.

What is the answer to:  
 $8^2 \div 8$

2.

What is the answer to:  
 $6^2 \div 6$



## Challenge:

- When I take six times a number from 50, the remainder is 2. What is the number?
- How much do I have left from £5 after buying 4 apples at 80p each?

Make up your own questions similar to this to challenge a friend.

## Dig's Tips:

“While playing this game, say the calculation you are working out before placing your counter. For example, if you pick a 2 and a 3, you could say “23 divided by 6 is 3 remainder 5” and then cover a 5 with your coloured counter or you could say “32 divided by 8 is 4 remainder 0” and then cover a 0 with your coloured counter.”



42 ⇌ 24

49

32

56

FINISH

START  
Roll the die

21

T7  
11Dig1t<sup>®</sup>  
games↓  
24

40

48

## DIVIDING BY 7 & 8 (nº.1)

### TO PLAY THIS GAME YOU NEED:

👤 x2

👤 x2

🎲 x1

56

8

**AIM:** To be the first to move around the board from **START** to **FINISH**.**HOW TO PLAY:** Pick a coloured playing piece each, place it on the **START** square and decide who goes first.

Players take turns. On your **first** turn you must roll the die to know how many places to move. After that, the number of places you move is decided by dividing the number in your square by **7 or 8**. Then choose to move forwards or backwards (but not both ways - see Dig's Tips).

If you land on your opponent's square at any point in the game, you must go back to the **START** and wait until your next turn to start again by rolling the die.

The winner is the first to land on **FINISH** by having exactly the right number needed to land on it. So if you need 2 to land on **FINISH** but you have an answer of 4, then you must move **back** (not forward) 4 spaces.

32

28

### Challenge:

1. When I take 8 times a number from 60, the remainder is 4. What is the number?



2. How much do I have left from £5 after buying 6 apples at 70p each?

Make up your own questions similar to this to challenge a friend.

### Dig's Tips:

“For each turn in this game, you can either move forward **or** back but not both ways in a single turn. E.g., if you land on 14 ( $14 \div 7 = 2$ ), you can then move 2 places forward **or** 2 places back. Think carefully which way to move in order to avoid landing in your opponent's square. One of the numbers on the board can be divided by 7 or 8 so think carefully about which number to divide by.”

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64

21



56

28

7

35

40

16

⇌ 42

# DIVIDING BY 8 UP TO $80 \div 8$

**TO PLAY THIS GAME YOU NEED:**
 x 2

 x 16

 x 16

**AIM:** To make the most lines of 3 with your coloured counters - horizontally, vertically or diagonally.

**HOW TO PLAY:** Pick a set of coloured counters each and decide who plays first. Players take turns. On your turn, pick a number sentence from the left-hand grid and find the answer on the right-hand grid. Cover up **both** circles with your coloured counters. Continue until both grids are fully covered.



$72 \div 8$	$48 \div 8$	
$\frac{1}{8}$ of 80	$32 \div 8$	
$56 \div 8$	$24 \div 8$	$\frac{1}{8}$ of 72
$\frac{1}{8}$ of 32	$64 \div 8$	$\frac{1}{8}$ of 48
$16 \div 8$	$\frac{1}{8}$ of 56	$\frac{1}{8}$ of 8
$\frac{1}{8}$ of 24	$\frac{1}{8}$ of 64	$40 \div 8$

5	4	3
7	6	2
4	8	9
9	1	7
6	8	3
	10	

## Dig's Questions:

1.

What is the sum of one-eighth of 72 and one-eighth of 56?

2.

What is the product of one-eighth of 64 and one-eighth of 48?



## Challenge:

How would  $64 \div 8$  help you to work out  $128 \div 8$  or  $256 \div 8$ ?  
 Use  $72 \div 8$  to work out  $144 \div 8$  and  $216 \div 8$ .  
 Use  $80 + 24 = 104$  to help you work out  $104 \div 8$ .  
 Which of the 8 times table division facts can you use to work out  $136 \div 8$ ?

## Dig's Tips:

“To find one-eighth of a number is the same as dividing that number by 8. Think about how you can use one-eighth to work out two-eighths of a number. Discuss what two-eighths of a number is the same as.”





# 9 TIMED TABLES & DIVISION (no.2) **Dig1t**<sup>®</sup> games

TO COMPLETE THIS ACTIVITY YOU NEED:



x1



x1



Timer

**AIM:** To fill in as many answers as you can in the time allocated.

Suggested time allocation: 3 minutes.

When repeating this exercise, change the order that you complete the columns in each time.



1. How many 9s in 54? .....	16. How many 9s in 81? .....	31. How many 9s in 63? .....
2. $3 \times 9 =$ .....	17. $9 \times 1 =$ .....	32. $6 \times 9 =$ .....
3. $0 \times 9 =$ .....	18. $5 \times 9 =$ .....	33. $10 \times 9 =$ .....
4. $9 \times 7 =$ .....	19. $9 \times 8 =$ .....	34. $9 \times 9 =$ .....
5. $9 \div 9 =$ .....	20. $54 \div 9 =$ .....	35. $18 \div 9 =$ .....
6. $45 \div 9 =$ .....	21. $63 \div 9 =$ .....	36. $72 \div 9 =$ .....
7. $8 \times 9 =$ .....	22. $9 \times 4 =$ .....	37. $1 \times 9 =$ .....
8. $2 \times 9 =$ .....	23. $9^2 =$ .....	38. $7 \times 9 =$ .....
9. $81 \div 9 =$ .....	24. $90 \div 9 =$ .....	39. $36 \div 9 =$ .....
10. $27 \div 9 =$ .....	25. $\frac{1}{9}$ of 81 = .....	40. $\frac{1}{9}$ of 45 = .....
11. $\frac{1}{9}$ of 54 = .....	26. $\frac{1}{9}$ of 27 = .....	41. $\frac{1}{9}$ of 54 = .....
12. $9 \times 3 =$ .....	27. $9 \times 6 =$ .....	42. $9 \times 5 =$ .....
13. $\frac{1}{9}$ of 36 = .....	28. $\frac{1}{9}$ of 9 = .....	43. $\frac{1}{9}$ of 18 = .....
14. $9 \times 2 =$ .....	29. $\frac{1}{9}$ of 72 = .....	44. $4 \times 9 =$ .....
15. $\frac{1}{9}$ of 90 = .....	30. $9 \times 10 =$ .....	45. $9 \times 0 =$ .....

## Dig's Questions:

1.

What is the missing number:  
 $63 \div 9 = \_ - 9$ ?

2.

A paper boy gets £9 for each paper-round. He works from Mon to Fri. How much does he earn in a week?



## Dig's Tips:

Ask an adult to time you to see how many questions you can answer in 3 minutes. If you can answer all the questions correctly in 3 minutes or less, or you are confident that you know how to answer them all, move on and play **T9 13** and **T9 14** and then time yourself on **T9 15**.

**For more practice:** Shuffle number cards **0 to 10** and ask an adult to turn each card over while you multiply the number on the card by **9**. Do this regularly to improve your speed.



# 2 TO 12 TIMES 3, 6, 9 & 12

TO PLAY THIS GAME YOU NEED:     x 2     x 18     x 18     x 2

**AIM:** To be the first to get 4 of your coloured counters in a row – horizontally, vertically or diagonally.

**HOW TO PLAY:** Pick a set of coloured counters each and decide who plays first. Players take turns. On your turn, roll two dice and add them together. Then choose to multiply the sum of your two dice by **3, 6, 9 or 12**. Cover the answer on the grid with one of your coloured counters. If your answer is already covered, your turn ends.

If you can't find your answer, then miss a go!



27	48	12	24	63	120
30	21	132	42	54	18
36	45	72	81	144	33
15	84	36	72	108	60
54	24	48	96	63	42
9	90	84	108	6	36

## Dig's Questions:

1.

What is the sum of one-sixth of 48 and one-twelfth of 144?

2.

What is the product of one-third of 27 and one-eleventh of 132?



## Challenge:

Two different rectangles both have an area of  $48\text{cm}^2$ . The difference between their perimeters is  $10\text{cm}$ . Work out the width and length of both rectangles. Make up your own questions similar to this to challenge a friend.

## Dig's Tips:

“While playing this game, think carefully about which number to multiply the sum of your two dice by. Consider all the possible answers you could cover and see which one helps you the most. You might be aiming to get 4 in a line or you might be trying to block your opponent from getting 4 in a line.”





## Years 1 to 6 - Maths Activities & Games

Over 400 curriculum-aligned maths games providing an engaging and fun way for children to practise the maths skills learned in class

- Supporting **every Number target** in Year 1 to 6
- **Easily incorporated** into existing lesson plans
- Game format enables children to play with maths **together**
- Use in class or as home-learning exercises
- Available in year-group, key stage, and individual topic packs



## Times Tables & Division Activities & Assessments

*Downloadable PDF resource!*

A comprehensive and engaging system of games and assessments that steadily progress children through the times-tables.

- Incorporates division alongside multiplication activities
- Regularly refers to previously completed tables in order to constantly refresh knowledge
- Assessments and Progress trackers are included
- A resource that families can also access!



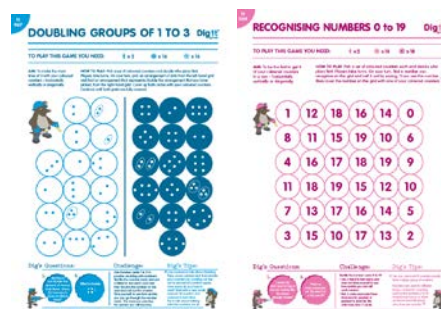
## Reception Games & Activities

*Downloadable PDF resource!*

Helping Reception teachers make children's introduction to maths an enjoyable and fun experience.

Focusing on:

- Number recognition
- Counting & estimating
- Simple addition & subtraction
- Number bonds



## Dig1t Deals - Metrics card game (age: 7+)

A card game that requires players to convert different units of measurement as well as practising children's multiplication and division skills.

Measurements include decimals and fractions!

- **Length:** Millimetres (mm), centimetres (cm) and metres (m)
- **Weight:** Kilograms (kg) and grams (g)
- **Capacity:** Millilitres (ml) and litres (l)



## **Free maths activity ideas** (Reception to Year 4)

**Downloadable PDF resource!**

These handy documents are packed full with ideas of games that can be played with just counters, dice and number cards.

Simple ideas played with simple resources that help to strengthen children's understanding of the foundational number concepts learned at school – and free to download and use!



## **Free Firework Activity Sheets**

**Downloadable PDF resource!**

Eight downloadable maths activities for fireworks season!

- Investigate different solutions to a series of challenges.
- Using all the operations to discover and explore number patterns
- Deepens children's understanding of numbers.
- A template of number-circles is available so that children can quickly move the numbers to solve the challenges



## **Christmas Maths Activities**

**Downloadable PDF resource!**

The activities encourage children to use dice, number and shape skills to complete Christmas-themed pictures.

The six activities will involve:

- Recognising numbers and dice formations.
- Recognising and naming 2D shapes.
- Recognising and naming quadrilaterals, polygons and different types of triangles.
- Addition and multiplication.



**Number Cards template** A PDF file for printing your own 0 to 20 number cards onto A4 card.

## **Number lines & Number Circles**

**Lines:** 0 to 10, 0 to 20, 0 to 5 (including  $\frac{1}{2}$ 's), 0 to 5 (including 0.5's), blank number lines

**Circles:** 0 to 9 – for use with our Firework activity sheets.

**Score sheets** To note down your scores as you play.