

CONTROLLER DOWN. BRAIN ON.

Mission: Number Island!

A tower of pizza boxes. A vegetable garden. And a high score board that is still missing your name.



Name _____

Date _____

Stage 1 · Times tables

Missions 1 to 3, about 40 min.
Big times tables, square numbers

Stage 2 · Numbers

Missions 4 to 6, about 35 min.
Data, ordering, rounding

Stage 3 · Boss level

Mission 7, about 15 min.
Everything mixed, on a new day

BIG TIMES TABLES · MENTAL MATH TRICKS

8 min

1 Pizza Turbo

Wobbi delivers pizza all over the island. Break big multiplication problems into small ones you already know.

A Split trick: tens and ones separately

Split the big number into tens and ones. Work out both parts and add them.

EXAMPLE $17 \times 6 = 10 \times 6 + 7 \times 6 = 60 + 42 = 102$

a) $14 \times 7 = 10 \times 7 + 4 \times 7 = \boxed{} + \boxed{} = \boxed{}$

b) $18 \times 6 = 10 \times 6 + \boxed{} \times 6 = \boxed{} + \boxed{} = \boxed{}$

c) $16 \times 9 = \boxed{} + \boxed{} = \boxed{}$ d) $13 \times 8 = \boxed{} + \boxed{} = \boxed{}$

B Neighbor trick: use 20

19 is right next to 20. Multiply by 20 and subtract the number once.

EXAMPLE $19 \times 7 = 20 \times 7 - 7 = 140 - 7 = 133$

a) $19 \times 6 = 20 \times 6 - 6 = \boxed{} - 6 = \boxed{}$

b) $19 \times 8 = \boxed{} - \boxed{} = \boxed{}$ c) $19 \times 9 = \boxed{} - \boxed{} = \boxed{}$

Turnaround fact: 6×17 is the same as 17×6 . So both tricks also work when the big number comes second.

☐ Mission 1 done

☆ Pizza pro

2 Delivery HQ

At Delivery HQ every number has to be right. Otherwise the pizza ends up at the wrong house.

A Delivery table

Always multiply **the number on the left by the number on top**. One box is filled in as an example.

×	4	7	9
12	48		
15			
17			
18			

Pro trick for 9:

Multiply by 10 first. Then subtract the number once.

$$18 \times 9 = 18 \times 10 - 18 = 180 - 18 = 162$$

B Work backwards

Which number is missing? Think of the matching multiplication fact.

EXAMPLE $112 \div 14 = 8$, because $14 \times 8 = 112$

a) $\times 7 = 119$

b) $16 \times$ $= 128$

c) $13 \times$ $= 91$

d) $135 \div 15 =$

e) $96 \div 16 =$

f) $171 \div$ $= 9$

C Mistake Detective

Pixel was too fast. **Exactly 3 answers are wrong**. Check “wrong” for those and write the correct answer in the box.

1 $17 \times 8 = 136$ ☐ wrong

2 $14 \times 6 = 74$ ☐ wrong

3 $18 \times 5 = 90$ ☐ wrong

4 $13 \times 9 = 117$ ☐ wrong

5 $16 \times 7 = 102$ ☐ wrong

6 $19 \times 4 = 76$ ☐ wrong

7 $15 \times 8 = 110$ ☐ wrong

8 $11 \times 9 = 99$ ☐ wrong

D Pro round: both numbers above 10

Split the second number: $12 \times 13 = 12 \times 10 + 12 \times 3 = 120 + 36 = 156$

$11 \times 17 =$

$14 \times 15 =$

$16 \times 12 =$

$13 \times 14 =$

☐ Mission 2 done

☆ Perfect delivery

SQUARE NUMBERS UP TO 20

3

Square Gardens

15 min

On the island every vegetable bed is a square: **as many rows as plants in each row**. A bed with 4 rows of 4 plants has $4 \times 4 = 16$ plants. 16 is a **square number**.



$$4 \times 4 = 16$$

A All the beds up to 20

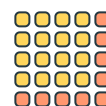
Multiply each number by itself. You know the top row from the basic times tables.

Number	1	2	3	4	5	6	7	8	9	10
Number × number										

Number	11	12	13	14	15	16	17	18	19	20
Number × number										

B Staircase trick: the bed grows

This is how a 15-bed becomes a 16-bed: a new row of **15** plants at the bottom and a new column of **16** plants on the right (counting the corner). That is $15 + 16 = 31$ new plants, so $16 \times 16 = 225 + 31 = 256$. Keep going up to 20×20 . Fill in the jumps and the square numbers.



$$16 + 4 + 5 = 25$$

15×15	$+ 31$	16×16	$+$		17×17	$+$		18×18	$+$		19×19	$+$		20×20
225	→	256	→		→		→		→		→		→	

C Square number or not?

a) $196 = \square \times \square$ b) $289 = \square \times \square$ c) $361 = \square \times \square$

d) Which square number is closest to 300?

e) Is 250 a square number? Check one and explain. ☐ yes ☐ no

D Garden job

a) Pixel plants all of her **169 seedlings** in a square bed. How many plants are in each row?

b) Later it should become a bed with 15 rows of 15 plants. How many more seedlings does she need?

Short form: $15 \times 15 = 15^2$ (say: "15 squared"). Square numbers from 11^2 to 20^2 are worth learning by heart.

☐ Mission 3 done

☆ Garden genius

4

COLLECTING AND SHOWING DATA

Island Survey

15 min

Pixel asked 30 people on the island: “Which job do you like best?” Each answer is a letter in this list.

P

 Pizza delivery

I

 Ice cream sales

T

 Taxi driving

F

 Fishing

R

 Fire rescue

F

T

I

I

P

I

R

P

F

R

I

F

P

I

P

F

P

F

I

P

P

F

T

T

R

R

P

R

P

I

A

Tally chart and table

Make one mark for each answer. Draw the **5th mark** across the first four:  Then count and write the number.

Job	Tally marks	Number
P Pizza delivery		
I Ice cream sales		
T Taxi driving		
F Fishing		
R Fire rescue		
Total		

B

Bar graph

Draw one bar for each job. **1 square = 1 person.**



1. Which job is the most popular?

2. How many more votes does pizza have than taxi?

3. Which **two** jobs together have as many votes as pizza?

Check: all bars together must be 30 squares tall.

5

COMPARING AND ORDERING NUMBERS

High Score Board

10 min

In the island arcade every point counts. Who is ahead, who is just behind?

A Number before and after

The **number before** is 1 less, the **number after** is 1 more. Fill in the blanks.

Number before	Number	Number after
	599	
	4,000	
	10,909	
7,099		
		20,000

B Greater or less?

Write < or >. The point faces the smaller number.

3,099

3,909

45,600

45,060

8,001

7,999

12 × 9

100

13 × 13

170

70,070

70,700

C Sort the high scores

Put the scores in order. Start with the **smallest**.

3,408

3,084

3,840

3,048

3,480

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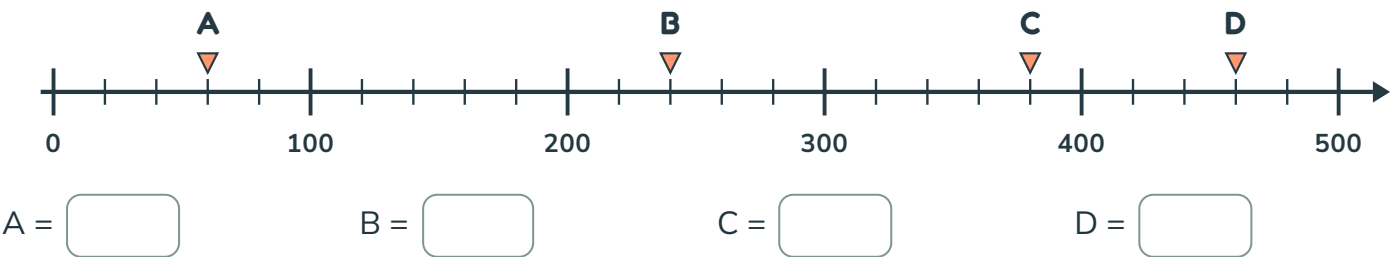
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D Number line

Which numbers belong to **A**, **B**, **C** and **D**? Then mark **140** and **320** with an arrow below the line.



☐ Mission 5 done

☆ High score cracked

6 Rounding Radar

ROUNDING

10 min

Island Radio only says rounded numbers. But they have to be rounded correctly!

How to round

1. Underline the place you round to. 2. Look at the digit **to its right**: **0, 1, 2, 3, 4** round down, **5, 6, 7, 8, 9** round up. 3. All digits to the right become 0.
- 2,718 $\approx$ 2,700 (nearest hundred: the digit to the right is 1, so round down). The sign $\approx$ means “about”.

A To the nearest ten, hundred, thousand

Number	nearest ten	nearest hundred	nearest thousand
4,352			
7,865			
2,996			
15,049			

B Rounding puzzle

A whole number was rounded. What is the **smallest** and the **greatest** number it could have been?

a) Rounded to the nearest ten: $\approx$ **350**

b) Rounded to the nearest hundred: $\approx$ **2,000**

smallest greatest

smallest greatest

C Radio check

The island festival had **12,468 guests**. The radio says: “About 12,500 guests!”

1. To which place did the radio round?

2. What would the radio have said if it had rounded to the nearest thousand?

3. Pixel says: “About 12,470.” To which place did Pixel round?

Watch out, trap: Always round from the **original** number. 1,449 to the nearest hundred is 1,400. Don't round to 1,450 first and then to 1,500!

7

ALL MIXED · NO HINTS

Boss Level: Island Champion

15 min

Everything mixed, like a test. Work on your own first, then compare with the answer key.

A

Speed round

Goal: 3 minutes

$16 \times 7 =$		$19 \times 4 =$		$14 \times 14 =$		$12 \times 9 =$	
$18 \times 8 =$		$17 \times 17 =$		$15 \times 6 =$		$13 \times 7 =$	
$120 \div 15 =$		$12 \times 15 =$		$153 \div 17 =$		$18 \times 18 =$	

B

Job money

Wobbi drives a taxi **8 times** and gets **14 coins** for each ride. Pixel delivers **9 pizzas** and gets **13 coins** for each pizza.

a) How many coins does Wobbi earn? How many does Pixel earn?

Who earns more, and how many coins more?

Wobbi Pixel

earns coins more.

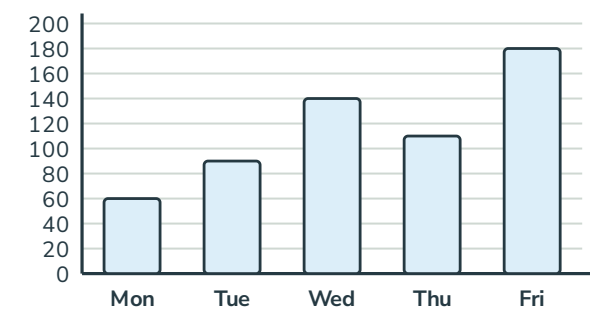
b) Together they want to buy a boat for **250 coins**. How many coins do they have together? How many are still missing?

together missing

Answer sentence for b): _____

C

Ice cream truck graph



Ice creams sold from Monday to Friday. From one line to the next is **20 ice creams**.

1. How many ice creams were sold on Wednesday?

2. On which day were 90 ice creams sold?

3. How many ice creams in all?

4. Round the total to the nearest hundred.

D

Number riddle

I am a square number between 300 and 400. My digit sum is 10.

Digit sum of 225: $2 + 2 + 5 = 9$

Who am I?

E

How am I doing?

After checking, color in: green, yellow or red.

	got it	almost	practice
Big times tables	☐	☐	☐
Square numbers up to 20	☐	☐	☐
Tally charts and bar graphs	☐	☐	☐
Ordering numbers and number lines	☐	☐	☐
Rounding	☐	☐	☐