

CONTROLLER DOWN. BRAIN
TURBO ON.

Mission: Parcel Express!

At the island depot, parcels are stacked in long rows. Anyone who knows their times tables up to 20 can deliver the fastest.



Name _____

Date _____



How to practice: one mission a day (15 to 20 minutes) and 5 minutes in the trainer. Focus: **11 to 20 times 1 to 10.**

TIMES TABLES TO 20 · SPLITTING

1 Split Trick

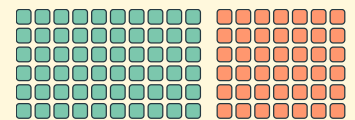
A big stack of parcels is just a stack of ten plus a few more. That turns every big multiplication fact into two small ones.



How the split trick works

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

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



6 rows of 17 parcels: **10 + 7**

A Show your steps

a) $14 \times 6 = \boxed{} + \boxed{} = \boxed{}$
 10×6 4×6

b) $16 \times 7 = \boxed{} + \boxed{} = \boxed{}$
 10×7 6×7

c) $18 \times 4 = \boxed{} + \boxed{} = \boxed{}$
 10×4 8×4

d) $13 \times 9 = \boxed{} + \boxed{} = \boxed{}$
 10×9 3×9

B Now in your head

$15 \times 6 = \boxed{}$ $12 \times 8 = \boxed{}$

$17 \times 3 = \boxed{}$

$11 \times 9 = \boxed{}$

$19 \times 5 = \boxed{}$ $14 \times 4 = \boxed{}$

$16 \times 6 = \boxed{}$

$13 \times 7 = \boxed{}$

☐ Mission 1 done

☆ **Stacks split**

TIMES TABLES TO 20 · TRICKS

2

Double & Neighbor

Two pro tricks from the depot: doubling for 12, 14, 16, 18 and the neighbor trick for 19 and 18.



Doubling trick

14 is double 7. So 14×7 is double $7 \times 7 = 49$: $14 \times 7 = 98$.

A Double it

a) $14 \times 9 = \boxed{} \rightarrow \boxed{}$
 7×9 doubled

b) $16 \times 8 = \boxed{} \rightarrow \boxed{}$
 8×8 doubled

c) $18 \times 6 = \boxed{} \rightarrow \boxed{}$
 9×6 doubled

d) $12 \times 7 = \boxed{} \rightarrow \boxed{}$
 6×7 doubled

Neighbor trick

19 is right next to 20. Use 20 and take one group away: $19 \times 7 = 20 \times 7 - 7 = 140 - 7 = 133$. For 18 you take two groups away.

B Neighbor trick

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

b) $19 \times 8 = \boxed{} - 8 = \boxed{}$
 20×8

c) $18 \times 9 = \boxed{} - \boxed{} = \boxed{}$
 20×9 2×9

d) $19 \times 4 = \boxed{} - 4 = \boxed{}$
 20×4

C Trick mix: use your favorite trick

$18 \times 8 = \boxed{}$

$19 \times 9 = \boxed{}$

$15 \times 8 = \boxed{}$

$12 \times 9 = \boxed{}$

$16 \times 9 = \boxed{}$

$14 \times 8 = \boxed{}$

$20 \times 7 = \boxed{}$

$17 \times 8 = \boxed{}$

Times 1, 2, 10 and 20: $17 \times 1 = 17$, $17 \times 2 = 34$ (double), $17 \times 10 = 170$ (add a zero), $20 \times 7 = 140$ (twice 10×7).

Bonus trick for 15: 15 is $10 + 5$, and 5 is half of 10. $15 \times 8 = 80 + 40 = 120$ (40 is half of 80).

☐ Mission 2 done

☆ Trick pro

DIVISION AND MISSING NUMBERS

3

Divide & Fill the Gaps

In the depot everything is shared fairly: the same number of parcels on every shelf. For that you need the inverse fact.



Inverse facts

Every multiplication fact has two related division facts: $13 \times 7 = 91$, so $91 \div 7 = 13$ and $91 \div 13 = 7$.
For $91 \div 7$ ask: *What number times 7 makes 91?*

A Fact families

$17 \times 6 = \square$

$6 \times 17 = \square$

$102 \div 6 = \square$

$102 \div 17 = \square$

$13 \times 8 = \square$

$8 \times 13 = \square$

$104 \div 8 = \square$

$104 \div 13 = \square$

B Division

$84 \div 12 = \square$

$126 \div 14 = \square$

$135 \div 15 = \square$

$152 \div 19 = \square$

$96 \div 16 = \square$

$117 \div 13 = \square$

$190 \div 10 = \square$

$34 \div 2 = \square$

C Which number is missing?

$13 \times \square = 78$

$\square \times 9 = 153$

$20 \times \square = 160$

$\square \times 8 = 144$

$19 \times \square = 133$

$\square \times 2 = 32$

D Continue the times table patterns

$17 \rightarrow 34 \rightarrow 51 \rightarrow \square \rightarrow \square \rightarrow \square$

$19 \rightarrow 38 \rightarrow 57 \rightarrow \square \rightarrow \square \rightarrow \square$

$160 \rightarrow 144 \rightarrow 128 \rightarrow \square \rightarrow \square \rightarrow \square$

☐ Mission 3 done

☆ Sharing master

4

Pro Warehouse

In the pro warehouse both numbers are big. No problem: just split the second number.



Split the second number

$14 \times 16 = 14 \times 10 + 14 \times 6 = 140 + 84 = 224$: times 10, then times the ones, then add.

A Show your steps

a) $13 \times 15 = \boxed{} + \boxed{} = \boxed{}$
 $ \underset{13 \times 10}{} \quad \underset{13 \times 5}{}$

b) $12 \times 17 = \boxed{} + \boxed{} = \boxed{}$
 $ \underset{12 \times 10}{} \quad \underset{12 \times 7}{}$

c) $16 \times 14 = \boxed{} + \boxed{} = \boxed{}$
 $ \underset{16 \times 10}{} \quad \underset{16 \times 4}{}$

d) $18 \times 12 = \boxed{} + \boxed{} = \boxed{}$
 $ \underset{18 \times 10}{} \quad \underset{18 \times 2}{}$

B Multiplication table: left number times top number

×	6	8	12	14
13				
17				
19				

C Word problems with number sentence and answer

1 The delivery van carries 16 crates. Each crate holds 9 parcels. How many parcels is that in all?

N = A _____

2 Pro: A pallet has 12 rows of 15 parcels. 17 parcels have already been delivered. How many parcels are still on the pallet?

N = A _____
 =

EVERYTHING MIXED · LIKE A TEST

5

Test Check

Now show what you can do: lightning round, error detective and a word problem. Afterwards you know exactly what you've got.



A Lightning round: 12 problems, goal 3 minutes

$17 \times 4 =$	$98 \div 7 =$	$13 \times 10 =$	$18 \times 5 =$
$20 \times 6 =$	$171 \div 9 =$	$17 \times$ $= 119$	$16 \times 2 =$
$19 \times 7 =$	$64 \div 4 =$	$18 \times 7 =$	$11 \times 1 =$

B Error detective: right or wrong?

Check each one. Mark it and write the correct answer next to it, even if it is already right.

- | | | |
|-------------------------|---------------|-------------------------------|
| 1. $17 \times 8 = 126$ | right / wrong | correct: <input type="text"/> |
| 2. $19 \times 6 = 114$ | right / wrong | correct: <input type="text"/> |
| 3. $15 \times 9 = 125$ | right / wrong | correct: <input type="text"/> |
| 4. $16 \times 7 = 112$ | right / wrong | correct: <input type="text"/> |
| 5. $14 \times 13 = 172$ | right / wrong | correct: <input type="text"/> |

C Word problem

- 1 126 parcels are shared equally among 14 shelves. How many parcels go on each shelf?

N = A _____

D Traffic light: how sure are you?

- | | |
|------------------------------|--|
| Split trick | ☐ ☒ got it ☐ almost ☐ practice more |
| Doubling and neighbor trick | ☐ ☒ got it ☐ almost ☐ practice more |
| Division and missing numbers | ☐ ☒ got it ☐ almost ☐ practice more |
| Both numbers above 10 | ☐ ☒ got it ☐ almost ☐ practice more |

☐ Mission 5 done

☆ Times table champion