

Grade 4 - Dividing with Remainders - Answer Key

Common Core 4.NBT.B.6 · maths-pdf.fr/en/

Check your work with this answer key. Each solution shows the partial quotients and a multiplication check. Remainders are written with R and explained in the word problems. The final answer is in bold.

Grade 4 · Common Core State Standards: **4.NBT.B.6**

Exercise 1 - Divide tens

8 tens divided by 4 is 2 tens.

Check: $20 \times 4 = 80$.

20

Exercise 2 - Divide hundreds

6 hundreds divided by 3 is 2 hundreds.

Check: $200 \times 3 = 600$.

200

Exercise 3 - Two-digit quotient

$30 \div 3 = 10$ and $18 \div 3 = 6$.

$10 + 6 = 16$

16

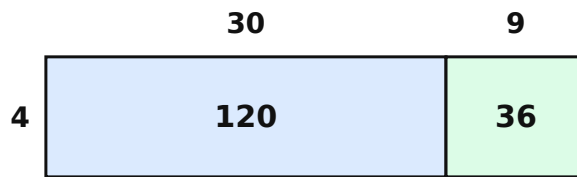
Exercise 4 - Break apart

$50 \div 5 = 10$ and $25 \div 5 = 5$.

$10 + 5 = 15$

15

Exercise 5 - Area model: $156 \div 4$



$$120 + 36 = 156.$$

Left over: $156 - 120 = 36$. $36 \div 4 = 9$.

$$30 + 9 = 39$$

39

Exercise 6 - Remainder: $92 \div 6$

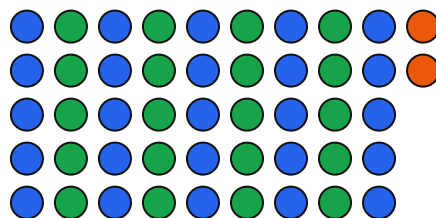
$$6 \times 10 = 60; 92 - 60 = 32. 6 \times 5 = 30; 32 - 30 = 2.$$

Quotient $10 + 5 = 15$, remainder 2.

$$\text{Check: } 15 \times 6 + 2 = 92.$$

15 R 2

Exercise 7 - Dots and remainders



9 groups of 5 and 2 left over.

There are 9 full groups of 5, and 2 dots are left over.

$$\text{Check: } 9 \times 5 + 2 = 47.$$

$$47 \div 5 = 9 \text{ R } 2$$

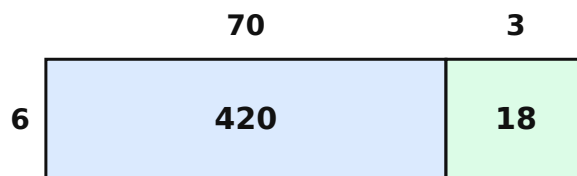
Exercise 8 - Three-digit dividend

$$5 \times 50 = 250; 275 - 250 = 25; 25 \div 5 = 5.$$

$$50 + 5 = 55$$

55

Exercise 9 - Find partial quotients



$$70 + 3 = 73.$$

$420 \div 6 = 70$ and $18 \div 6 = 3$. The quotient is $70 + 3 = 73$.

Check: $73 \times 6 = 438$.

73

Exercise 10 - Zero in the quotient

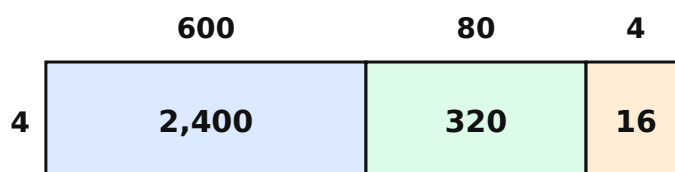
$4 \times 200 = 800$; $817 - 800 = 17$. There are no whole tens in 17 that 4 can use except $4 \times 4 = 16$, so the tens place is 0.

$200 + 0 + 4 = 204$, and $17 - 16 = 1$ is the remainder.

Check: $204 \times 4 + 1 = 817$.

204 R 1

Exercise 11 - Area model: $2,736 \div 4$



$$600 + 80 + 4 = 684.$$

$$2,400 \div 4 = 600, 320 \div 4 = 80, 16 \div 4 = 4.$$

$$600 + 80 + 4 = 684$$

$$684$$

Exercise 12 - Divide 1,500

$$1,200 \div 6 = 200; 1,500 - 1,200 = 300; 300 \div 6 = 50.$$

$$200 + 50 = 250$$

$$250$$

Exercise 13 - Four digits by seven

$$7 \times 400 = 2,800; 3,284 - 2,800 = 484. 7 \times 60 = 420; 484 - 420 = 64. 7 \times 9 = 63; 64 - 63 = 1.$$

$$\text{Quotient } 400 + 60 + 9 = 469, \text{ remainder } 1.$$

$$\text{Check: } 469 \times 7 + 1 = 3,283 + 1 = 3,284.$$

$$469 \text{ R } 1$$

Exercise 14 - Divide 5,000

$$8 \times 600 = 4,800; 5,000 - 4,800 = 200. 8 \times 25 = 200.$$

$$600 + 25 = 625$$

$$\text{Check: } 625 \times 8 = 5,000.$$

$$625$$

Exercise 15 - Cookie bags

$$138 \div 6: 6 \times 20 = 120; 138 - 120 = 18; 18 \div 6 = 3.$$

$$20 + 3 = 23$$

$$\text{Check: } 23 \times 6 = 138.$$

23 cookies

Exercise 16 - Soccer teams

$$83 \div 8: 8 \times 10 = 80; 83 - 80 = 3.$$

The quotient is 10 and the remainder is 3. The remainder is dropped for full teams.

$$\text{Check: } 10 \times 8 + 3 = 83.$$

10 full teams; 3 players left

Exercise 17 - Road trip days

$$1,260 \div 5: 5 \times 200 = 1,000; 1,260 - 1,000 = 260; 5 \times 50 = 250; 260 - 250 = 10; 5 \times 2 = 10.$$

$$200 + 50 + 2 = 252$$

$$\text{Check: } 252 \times 5 = 1,260.$$

252 miles

Exercise 18 - Pencil boxes

$$8 \times 40 = 320; 365 - 320 = 45; 8 \times 5 = 40; 45 - 40 = 5.$$

Quotient $40 + 5 = 45$, remainder 5.

$$\text{Check: } 45 \times 8 + 5 = 365.$$

45 full boxes; 5 pencils left

Exercise 19 - Vans for the field trip

$$94 \div 7: 7 \times 13 = 91; 94 - 91 = 3. \text{ The quotient is 13 with remainder 3.}$$

Thirteen vans carry 91 people, so 3 people still need a ride. One more van is needed.

14 vans

Exercise 20 - Markers for classes

Total markers: $3 \times 248 = 744$.

$744 \div 9$: $9 \times 80 = 720$; $744 - 720 = 24$; $9 \times 2 = 18$; $24 - 18 = 6$.

Quotient $80 + 2 = 82$, remainder 6. Check: $82 \times 9 + 6 = 744$.

82 markers each; 6 left over