

Divisibility & Remainders

Practice — ANSWER KEY

Digit-sum tricks and sharing problems.

Think: For 3 and 9: add up the digits. If the digit sum divides, the number divides.

1. Answers with the thinking.

- 1) What is the remainder of $71 \div 7$? **1**

↳ $7 \times 10 = 70$

- 3) Is 38 divisible by 3? Use the digit-sum trick. **no**

↳ digits add to 11; 11 is not divisible by 3

- 5) What is the remainder of $56 \div 7$? **0**

↳ $7 \times 8 = 56$

- 7) Is 182 divisible by 3? Use the digit-sum trick. **no**

↳ digits add to 11; 11 is not divisible by 3

- 9) What is the remainder of $26 \div 6$? **2**

↳ $6 \times 4 = 24$

- 11) Is 130 divisible by 9? Use the digit-sum trick. **no**

↳ digits add to 4; 4 is not divisible by 9

- 2) 26 marbles are shared equally among 5 friends. How many marbles are LEFT OVER? **1**

↳ each friend gets 5

- 4) What is the remainder of $32 \div 6$? **2**

↳ $6 \times 5 = 30$

- 6) Is 190 divisible by 9? Use the digit-sum trick. **no**

↳ digits add to 10; 10 is not divisible by 9

- 8) Is 94 divisible by 3? Use the digit-sum trick. **no**

↳ digits add to 13; 13 is not divisible by 3

- 10) 26 marbles are shared equally among 3 friends. How many marbles are LEFT OVER? **2**

↳ each friend gets 8

- 12) What is the remainder of $56 \div 9$? **2**

↳ $9 \times 6 = 54$