Dividing with 0 and 1

There are special rules to follow when dividing by 1 or 0.

Rule	Example	What You **Think**	What You **Write**
When any number is divided by 1, the quotient is that number.	7 ÷ 1 = ?	1 times what number = 7? $1 \times 7 = 7$ So, 7 ÷ 1 = 7	$7 \div 1 = 7$ or $1\overline{)7}$ with quotient 7
When any number (except 0) is divided by itself, the quotient is 1.	8 ÷ 8 = ?	8 times what number = 8? $8 \times 1 = 8$ So, 8 ÷ 8 = 1	$8 \div 8 = 1$ or $8\overline{)8}$ with quotient 1
When zero is divided by a number (except 0), the quotient is 0.	0 ÷ 5 = ?	5 times what number = 0? $5 \times 0 = 0$ So, 0 ÷ 5 = 0	$0 \div 5 = 0$ or $5\overline{)0}$ with quotient 0
You cannot divide a number by 0.	9 ÷ 0 = ?	0 times what number = 9? There is no number that works, so 9 ÷ 0 cannot be done.	9 ÷ 0 cannot be done

Find each quotient.

1. 25 ÷ 1   **2.** 9 ÷ 9   **3.** 0 ÷ 8   **4.** 6 ÷ 6   **5.** 4 ÷ 1

_____   _____   _____   _____   _____

6. $1\overline{)7}$ **7.** $12\overline{)12}$ **8.** $17\overline{)0}$ **9.** $5\overline{)5}$ **10.** $1\overline{)9}$

Compare. Use <, >, or =.

11. 15 ÷ 1 ◯ 15 ÷ 15   **12.** 0 ÷ 12 ◯ 12 ÷ 12

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