

Grade 7 - Multiplying and Dividing Rational Numbers - Test

Common Core 7.NS.A.2 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 45-minute test checks multiplying and dividing integers, fractions, and decimals, sign rules, and converting fractions to terminating or repeating decimals (Common Core 7.NS.A.2). It has 9 questions worth 20 points in all. Show your work, because most questions give partial credit for correct steps.

About this test

- Grade: Grade 7
- Chapter: Multiplying and Dividing Rational Numbers
- Standards: 7.NS.A.2
- Time: 45 minutes
- Total: 20 points

Question 1 - Integers [2 pts]

Find (a) -9×7 (b) $-72 \div (-8)$ (c) $(-3)(-2)(-5)$ (d) $0 \div (-4)$

Question 2 - Sign explanation [2 pts]

Explain why the product of two negative numbers is positive. Use an example with numbers.

Question 3 - Decimals [2 pts]

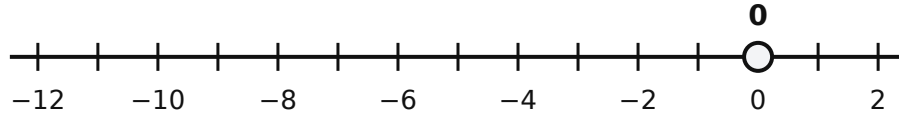
Find (a) -1.2×0.5 and (b) $-4.5 \div (-0.15)$.

Question 4 - Fractions [2 pts]

Find (a) $-\frac{3}{5} \times \frac{10}{9}$ and (b) $-\frac{7}{8} \div (-\frac{1}{4})$.

Question 5 - Fractions as decimals [2 pts]

Write each fraction as a decimal. State whether it terminates or repeats. (a) $\frac{3}{16}$ (b) $\frac{7}{12}$.

Question 6 - Number line [2 pts]

Start at 0.

Show $3 \times (-2.5)$ as repeated addition. Draw or describe the jumps and find the product.

Question 7 - Three fractions [2 pts]

Find $\left(-\frac{3}{2}\right)\left(-\frac{5}{3}\right)\left(-\frac{2}{5}\right)$.

Question 8 - Savings plan [3 pts]

Week	Change in savings
1	-\$4.25
2	-\$4.25
3	-\$4.25
...	...
6	-\$4.25

Mei's weekly spending from her savings.

- Find the total change after 6 weeks. (1 point)
- If the total is shared equally over 3 equal accounts, find the change in each. (1 point)
- Find how many weeks it takes for the total change to reach $-\$51$. (1 point)

Question 9 - Mean change [3 pts]

Day	Temp change (F)
Mon	-3
Tue	+5
Wed	-2.5
Thu	-4.5

Daily temperature changes.

- a. Find the total change. (1 point)
- b. Find the mean daily change. (1 point)
- c. If the mean change continued for 10 more days, find the total change. (1 point)