

Name: Class:

Multiply and divide rational numbers

Solve the following operations:

a. $-1.5 \div 0.5 =$

b. $-2 \times \frac{10}{15}$

c. $(-3\frac{2}{5}) \div (-2)$

d. $(-0.5) \div (-0.5)$

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Multiply and divide rational numbers

a. $-1.5 \div 0.5 =$

$$0.5 \times 10 \mid -1.5 \times 10 = 5 \begin{array}{r} -3 \\ -15 \\ -15 \\ \hline 0 \end{array} = -3$$

Therefore, $-1.5 \div 0.5 = -3$

b. $-2 \times \frac{10}{15}$

$$\begin{aligned} -2 \times \frac{10}{15} &= \frac{-2}{1} \times \frac{10}{15} = \frac{-20}{15} \\ &= \frac{-4 \times 5}{3 \times 5} = \frac{-4}{3} = -1\frac{1}{3} \end{aligned}$$

Therefore, $-2 \times \frac{10}{15} = -1\frac{1}{3}$

c. $(-3\frac{2}{5}) \div (-2)$

$$\begin{aligned} -3\frac{2}{5} \text{ by } -2 &= -3\frac{2}{5} \div \frac{-2}{1} \\ &= \frac{(-3 \times 5 + 2)}{5} \div \frac{-2}{1} = \frac{-17}{5} \times \frac{-1}{2} \\ &= \frac{-17}{5} \times \frac{-1}{2} = \frac{-17 \times -1}{5 \times 2} = \frac{17}{10} \\ &= \frac{17}{10} = 1\frac{7}{10} \end{aligned}$$

Therefore, $-3\frac{2}{5} \div -2 = 1\frac{7}{10}$

d. $(-0.5) \div (-0.5)$

$$\frac{-0.5}{-0.5} = 1$$

Therefore, $(-0.5) \div (-0.5) = 1$