Multiplying and Dividing Rational Numbers Worksheet

Directions: Multiply or divide the rational numbers. Simplify all fractions when possible.

Part A: Multiplying Rational Numbers

1. $\frac{1}{2} \times \frac{3}{4} = \frac{\square}{\square}$
2. $\frac{2}{3} \times \frac{5}{6} = \frac{\square}{\square} = \frac{\square}{\square}$
3. $\frac{7}{8} \times \frac{4}{7} = \frac{\square}{\square} = \frac{\square}{\square}$
4. $\frac{3}{5} \times \frac{10}{9} = \frac{\square}{\square} = \frac{\square}{\square}$
5. $\frac{5}{12} \times \frac{6}{10} = \frac{\square}{\square} = \frac{\square}{\square}$
6. $-\frac{2}{3} \times \frac{9}{4} = \frac{\square}{\square} = \frac{\square}{\square}$
7. $-\frac{5}{8} \times -\frac{4}{15} = \frac{\square}{\square} \quad \frac{\square}{\square}$
8. $\frac{3}{7} \times -\frac{14}{9} = \frac{\square}{\square} = \frac{\square}{\square}$
9. $0.5 \times 1.2 = \frac{\square}{\square} = \frac{\square}{\square}$
10. $-2.5 \times 0.4 = ____$
11. $1.75 \times 2 = ____$
12. $-3.2 \times -1.5 = ____$

Part B: Dividing Rational Numbers

13. $\frac{3}{4} \div \frac{1}{2} = \frac{\square}{\square} = \square \frac{\square}{\square}$
14. $\frac{5}{6} \div \frac{5}{12} = \frac{\square}{\square} = \frac{\square}{\square} = \square$
15. $\frac{7}{8} \div \frac{7}{16} = \frac{\square}{\square} = \frac{\square}{\square} = \square$
16. $\frac{2}{3} \div \frac{4}{9} = \frac{\square}{\square} = \square \frac{\square}{\square}$
17. $\frac{9}{10} \div \frac{3}{5} = \frac{\square}{\square} = \square \frac{\square}{\square}$
18. $-\frac{4}{5} \div \frac{2}{3} = \frac{\square}{\square} = \square \frac{\square}{\square}$
19. $-\frac{7}{12} \div -\frac{7}{18} = \frac{\square}{\square} = \frac{\square}{\square} = \square \frac{\square}{\square}$
20. $\frac{3}{8} \div -\frac{9}{16} = \frac{\square}{\square} = \frac{\square}{\square}$
21. $2.4 \div 0.6 = ____$
22. $-4.5 \div 1.5 = ____$

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