Dividing Fractional Expressions

* Be sure your answer is simplified.

① $\frac{7}{10} \div \frac{21}{15} =$

$\frac{7}{10} \cdot \frac{15}{21} = \frac{7 \cdot 3 \cdot 5}{2 \cdot 5 \cdot 3 \cdot 7} = \frac{1}{2}$

②

$\frac{7x^2}{30} \div \frac{4x^2}{5} =$

$\frac{7x^2}{30} \cdot \frac{5}{4x^2} = \frac{7 \cdot 5 \cdot x^2}{30 \cdot 4 \cdot x^2} = \frac{7 \cdot 5}{6 \cdot 5 \cdot 4} = \frac{7}{24}$

③

$\frac{21a^3}{1} \div \frac{3a}{14} =$

$\frac{21a^3}{1} \cdot \frac{14}{3a} = \frac{21 \cdot 14 \cdot a^3}{3 \cdot a} = \frac{3 \cdot 7 \cdot 14 \cdot a^2}{3} = 98a^2$

$\frac{2\,14}{7}$
98