****Multiplying and Dividing Algebraic Fractions GREEN

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| 1) $\frac{6}{7j-7}×\frac{5j-5}{6j}$  | 2) $\frac{6x+3}{8x}÷\frac{10x+5}{4}$ |
| 3) $\frac{21w-14}{8w}×\frac{4}{24w^{2}-16w}$ | 4) $\frac{3b}{10b+20}÷\frac{9}{2b^{2}+4b}$ |
| 5) $\frac{x^{2}-9}{x^{2}-4x-21}×\frac{3x+12}{x^{2}+x-12}$ | 6) $\frac{4x+24}{5x+15}÷\frac{(x+6)^{2}}{x^{2}-36}$  |
| 7) $\frac{a^{2}-a-6}{a^{2}+6a+5}×\frac{a^{2}+3a-10}{a^{2}+a-12}$ | 8) $\frac{c^{2}+12c+32}{c^{2}-5c+4}÷\frac{c^{2}-3c-28}{c^{2}+c-2}$  |

****Multiplying and Dividing Algebraic Fractions AMBER

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| To multiply algebraic fractions:1. factorise the numerator and/or denominator
2. cancel common factors
3. multiply the numerators, multiply the denominators
 | To divide algebraic fractions:1. factorise the numerator and/or denominator
2. flip the second fraction and change ÷ to ×
3. cancel common factors
4. multiply the numerators, multiply the denominators
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| 1) $\frac{6}{7j-7}×\frac{5j-5}{6j}$  | 2) $\frac{6x+3}{8x}÷\frac{10x+5}{4}$ |
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| 7) $\frac{a^{2}-a-6}{a^{2}+6a+5}×\frac{a^{2}+3a-10}{a^{2}+a-12}$ | 8) $\frac{c^{2}+12c+32}{c^{2}-5c+4}÷\frac{c^{2}-3c-28}{c^{2}+c-2}$  |

****Multiplying and Dividing Algebraic Fractions RED

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| To multiply algebraic fractions:1. factorise the numerator and/or denominator
2. cancel common factors
3. multiply the numerators, multiply the denominators
 | To divide algebraic fractions:1. factorise the numerator and/or denominator
2. flip the second fraction and change ÷ to ×
3. cancel common factors
4. multiply the numerators, multiply the denominators
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| 1) $\frac{6}{7j-7}×\frac{5j-5}{6j}=\frac{6}{7(j-1)}×\frac{5(j-1)}{6j}$  | 2) $\frac{6x+3}{8x}÷\frac{10x+5}{4}=\frac{3(2x+1)}{8x}×\frac{4}{5(2x+1)}$ |
| 3) $\frac{21w-14}{8w}×\frac{4}{24w^{2}-16w}$ | 4) $\frac{3b}{10b+20}÷\frac{9}{2b^{2}+4b}$ |
| 5) $\frac{x^{2}-9}{x^{2}-4x-21}×\frac{3x+12}{x^{2}+x-12}$ | 6) $\frac{4x+24}{5x+15}÷\frac{(x+6)^{2}}{x^{2}-36}$  |
| 7) $\frac{a^{2}-a-6}{a^{2}+6a+5}×\frac{a^{2}+3a-10}{a^{2}+a-12}$ | 8) $\frac{c^{2}+12c+32}{c^{2}-5c+4}÷\frac{c^{2}-3c-28}{c^{2}+c-2}$  |