Name_____

8.EE.C.7b

Multiplying Fractions

$$\frac{-22cd^2}{2d} \cdot \frac{17c^2d}{17d} = \frac{-1 \cdot \cancel{22} \cdot 11 \cdot c\cancel{d}^{d} \cdot d}{\cancel{2d}} \cdot \frac{\cancel{17}c^2\cancel{d}}{\cancel{17}\cancel{d}} = -11c^3d$$

$$\frac{3x-6}{6x+6} \cdot \frac{x^2+3x+2}{x^2-3x+2} = \frac{\cancel{3}\,\cancel{(x-2)}}{\cancel{6}\,\cancel{(x+1)}_{2}} \cdot \frac{(x+2)\,\cancel{(x+1)}}{\cancel{(x-2)}\,(x-1)} = \frac{x+2}{2\,(x-1)}$$

1. $\frac{24r^2s^2}{3s} \cdot \frac{-21s}{r} =$

2. $\frac{x^2y}{z^2} \cdot \frac{z}{xy} =$

3. $\frac{2t+16}{4t} \cdot \frac{10t^2}{3t+24} =$

4. $\frac{x^2-1}{x} \cdot \frac{x^2}{x-1} =$

5. $\frac{a+b}{a-b} \cdot \frac{a^2-b^2}{a+b} =$

6. $\frac{a^2-4}{a^2-1} \cdot \frac{a-1}{a-1} =$

7. $\frac{2x+2}{x-1} \cdot \frac{x^2+x-2}{x^2-x-2} =$

8. $\frac{z^2-6z-7}{z^2+z} \cdot \frac{z^2-z}{3z-21} =$

9. $\frac{c^2-6c-16}{c^2+4c-21} \cdot \frac{c^2-8c+15}{c^2+9c+14} =$

10. $\frac{x+8}{x^2-x-12} \cdot \frac{x^2-6x+8}{x^2+6x-16} =$

11. $\frac{h^2-2h-3}{h^2-9} \cdot \frac{h^2+5h+6}{h^2-1} =$

12. $\frac{x^2-y^2}{x^2+4xy+3y^2} \cdot \frac{x^2+xy-6y^2}{x^2+xy-2y^2} =$

13. $\frac{30+y-y^2}{25-y^2} \cdot \frac{y^2}{y^2-6y} \cdot \frac{y^2-y-12}{y^2-9} =$

14. $\frac{5m+5n}{m^2-n^2} \cdot \frac{m^2-mn}{(m+n)^2} =$