Name: _____ Date: _____

Fresh Math

Multiplying Dividing Rational Expressions - Medium

Divide by multiplying by the reciprocal. Simplify completely. Assume no denominator is zero.

1. $\frac{12x^2}{11y^2} \div \frac{5x^2}{9}$

2. $\frac{5x^3}{2y} \div \frac{6x}{4y^2}$

3. $\frac{9x^4}{7} \div \frac{4x^4}{6y}$

4. $\frac{8x^2}{11y^3} \div \frac{8x^4}{12y^2}$

5. $\frac{11x}{3y^2} \div \frac{5x^3}{2y}$

6. $\frac{5x}{11y^3} \div \frac{2x^3}{4y}$

7. $\frac{11x^4}{3} \div \frac{2x^4}{8y^2}$

8. $\frac{9x}{11} \div \frac{12x^4}{11y^2}$

9. $\frac{6x^5}{9y^2} \div \frac{2x^2}{8y^2}$

10. $\frac{8x^5}{2} \div \frac{3x}{8}$

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Multiplying Dividing Rational Expressions - Medium

Divide by multiplying by the reciprocal. Simplify completely. Assume no denominator is zero.

11. $\frac{12x^5}{3y} \div \frac{10x^2}{7y}$

12. $\frac{10x^5}{11} \div \frac{11x^3}{6}$

13. $\frac{6x^2}{12y^3} \div \frac{11x^3}{5y}$

14. $\frac{9x^4}{5y^3} \div \frac{6x^3}{3y^3}$

15. $\frac{5x^3}{4} \div \frac{9x^2}{3y^2}$

16. $\frac{8x^4}{7} \div \frac{2x^4}{7y^2}$

17. $\frac{5x^5}{2y} \div \frac{11x^4}{8y^3}$

18. $\frac{3x^2}{12y^2} \div \frac{9x^2}{8y^2}$

19. $\frac{4x}{3y^2} \div \frac{12x^4}{2y}$

20. $\frac{7x^4}{3y^3} \div \frac{4x}{12y^3}$

Multiplying Dividing Rational Expressions - Medium - Answer Key

1. $\frac{12x^2}{11y^2} \div \frac{5x^2}{9}$

$\frac{108}{55y^2}$

2. $\frac{5x^3}{2y} \div \frac{6x}{4y^2}$

$\frac{5x^2y}{3}$

3. $\frac{9x^4}{7} \div \frac{4x^4}{6y}$

$\frac{27y}{14}$

4. $\frac{8x^2}{11y^3} \div \frac{8x^4}{12y^2}$

$\frac{12}{11x^2y}$

5. $\frac{11x}{3y^2} \div \frac{5x^3}{2y}$

$\frac{22}{15x^2y}$

6. $\frac{5x}{11y^3} \div \frac{2x^3}{4y}$

$\frac{10}{11x^2y^2}$

7. $\frac{11x^4}{3} \div \frac{2x^4}{8y^2}$

$\frac{44y^2}{3}$

8. $\frac{9x}{11} \div \frac{12x^4}{11y^2}$

$\frac{3y^2}{4x^3}$

9. $\frac{6x^5}{9y^2} \div \frac{2x^2}{8y^2}$

$\frac{8x^3}{3}$

10. $\frac{8x^5}{2} \div \frac{3x}{8}$

$\frac{32x^4}{3}$

Multiplying Dividing Rational Expressions - Medium - Answer Key

11. $\frac{12x^5}{3y} \div \frac{10x^2}{7y}$

$\frac{14x^3}{5}$

12. $\frac{10x^5}{11} \div \frac{11x^3}{6}$

$\frac{60x^2}{121}$

13. $\frac{6x^2}{12y^3} \div \frac{11x^3}{5y}$

$\frac{5}{22xy^2}$

14. $\frac{9x^4}{5y^3} \div \frac{6x^3}{3y^3}$

$\frac{9x}{10}$

15. $\frac{5x^3}{4} \div \frac{9x^2}{3y^2}$

$\frac{5xy^2}{12}$

16. $\frac{8x^4}{7} \div \frac{2x^4}{7y^2}$

$4y^2$

17. $\frac{5x^5}{2y} \div \frac{11x^4}{8y^3}$

$\frac{20xy^2}{11}$

18. $\frac{3x^2}{12y^2} \div \frac{9x^2}{8y^2}$

$\frac{2}{9}$

19. $\frac{4x}{3y^2} \div \frac{12x^4}{2y}$

$\frac{2}{9x^3y}$

20. $\frac{7x^4}{3y^3} \div \frac{4x}{12y^3}$

$7x^3$