

Name : _____ Score : _____

Teacher : _____ Date : _____

Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

$$1) \quad \frac{7q + 5g}{2q^2g^2} - \frac{7q + 9g}{2q^2g^2}$$

$$6) \quad \frac{5x^3 - 3n^3}{2x^6} + \frac{4x^3 - 5n^3}{2x^6}$$

$$2) \quad \frac{7b + 9s}{5b^3} - \frac{4b - 7s}{5b^3}$$

$$7) \quad \frac{5n + 4}{7n^3 + 17n} + \frac{6n + 2}{7n^3 + 17n}$$

$$3) \quad \frac{5h + 7}{2h^4 + 17h} - \frac{4h + 2}{2h^4 + 17h}$$

$$8) \quad \frac{3d + 6}{8d^2 + 6} + \frac{2d}{8d^2 + 6}$$

$$4) \quad \frac{4y - 4}{6y^3 + 13} - \frac{8y}{6y^3 + 13}$$

$$9) \quad \frac{p}{3} + \frac{5p + 2}{p + 1}$$

$$5) \quad \frac{2r - 2d}{8r^2d^2} + \frac{2r + 3d}{8r^2d^2}$$

$$10) \quad \frac{2c}{3} - \frac{3c + 5}{4c + 4}$$

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Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

$$1) \quad \frac{7q + 5g}{2q^2g^2} - \frac{7q + 9g}{2q^2g^2}$$
$$\frac{-2}{q^2g}$$

$$6) \quad \frac{5x^3 - 3n^3}{2x^6} + \frac{4x^3 - 5n^3}{2x^6}$$
$$\frac{9x^3 - 8n^3}{2x^6}$$

$$2) \quad \frac{7b + 9s}{5b^3} - \frac{4b - 7s}{5b^3}$$
$$\frac{3b + 16s}{5b^3}$$

$$7) \quad \frac{5n + 4}{7n^3 + 17n} + \frac{6n + 2}{7n^3 + 17n}$$
$$\frac{11n + 6}{n(7n^2 + 17)}$$

$$3) \quad \frac{5h + 7}{2h^4 + 17h} - \frac{4h + 2}{2h^4 + 17h}$$
$$\frac{h + 5}{h(2h^3 + 17)}$$

$$8) \quad \frac{3d + 6}{8d^2 + 6} + \frac{2d}{8d^2 + 6}$$
$$\frac{5d + 6}{2(4d^2 + 3)}$$

$$4) \quad \frac{4y - 4}{6y^3 + 13} - \frac{8y}{6y^3 + 13}$$
$$\frac{4(-y - 1)}{6y^3 + 13}$$

$$9) \quad \frac{p}{3} + \frac{5p + 2}{p + 1}$$
$$\frac{p^2 + 16p + 6}{3(p + 1)}$$

$$5) \quad \frac{2r - 2d}{8r^2d^2} + \frac{2r + 3d}{8r^2d^2}$$
$$\frac{4r + d}{8r^2d^2}$$

$$10) \quad \frac{2c}{3} - \frac{3c + 5}{4c + 4}$$
$$\frac{8c^2 - c - 15}{12(c + 1)}$$