

Name : _____

Score : _____

Teacher : _____

Date : _____

Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

1)
$$\frac{5h + 3r}{2h^5 r^5} - \frac{5h + 2r}{2h^5 r^5}$$

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

2)
$$\frac{3s + 4p}{5s^2} - \frac{2s + 8p}{5s^2}$$

7)
$$\frac{7q^4 - 5}{3q^7 - 13q^4} + \frac{4q^4 + 2}{3q^7 - 13q^4}$$

3)
$$\frac{4y^3 - 6}{2y^5 - 15y^3} - \frac{8y^3 - 8}{2y^5 - 15y^3}$$

8)
$$\frac{6d^4 - 2}{7d^5 - 8} + \frac{5d^4}{7d^5 - 8}$$

4)
$$\frac{6n + 6}{8n^2 - 17} - \frac{4n}{8n^2 - 17}$$

9)
$$\frac{3b}{8} + \frac{6b + 4}{7b + 5}$$

5)
$$\frac{3c^3 + 8d^3}{8c^4 d^4} + \frac{3c^3 + 6d^3}{8c^4 d^4}$$

10)
$$\frac{4g}{9} - \frac{8g + 3}{2g + 2}$$



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Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

$$1) \quad \frac{5h + 3r}{2h^5 r^5} - \frac{5h + 2r}{2h^5 r^5}$$

$$\frac{1}{2h^5 r^4}$$

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

$$\frac{7(x - 2q)}{6x^2}$$

$$2) \quad \frac{3s + 4p}{5s^2} - \frac{2s + 8p}{5s^2}$$

$$\frac{s - 4p}{5s^2}$$

$$7) \quad \frac{7q^4 - 5}{3q^7 - 13q^4} + \frac{4q^4 + 2}{3q^7 - 13q^4}$$

$$\frac{11q^4 - 3}{q^4(3q^3 - 13)}$$

$$3) \quad \frac{4y^3 - 6}{2y^5 - 15y^3} - \frac{8y^3 - 8}{2y^5 - 15y^3}$$

$$\frac{2(-2y^3 + 1)}{y^3(2y^2 - 15)}$$

$$8) \quad \frac{6d^4 - 2}{7d^5 - 8} + \frac{5d^4}{7d^5 - 8}$$

$$\frac{11d^4 - 2}{7d^5 - 8}$$

$$4) \quad \frac{6n + 6}{8n^2 - 17} - \frac{4n}{8n^2 - 17}$$

$$\frac{2(n + 3)}{8n^2 - 17}$$

$$9) \quad \frac{3b}{8} + \frac{6b + 4}{7b + 5}$$

$$\frac{21b^2 + 63b + 32}{8(7b + 5)}$$

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

$$\frac{3c^3 + 7d^3}{4c^4 d^4}$$

$$10) \quad \frac{4g}{9} - \frac{8g + 3}{2g + 2}$$

$$\frac{8g^2 - 64g - 27}{18(g + 1)}$$

