

Name : _____

Score : _____

Teacher : _____

Date : _____

Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

1)
$$\frac{4k - 3}{5k^2 + 3} + \frac{8k}{5k^2 + 3}$$

6)
$$\frac{6x^3 - 7}{8x^6 + 15} - \frac{5x^3}{8x^6 + 15}$$

2)
$$\frac{4z^3 + 4}{7z^4 + 8} + \frac{6z^3}{7z^4 + 8}$$

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

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

8)
$$\frac{s + 3}{s^2 - 8s + 15} + \frac{8s}{2s}$$

4)
$$9 + \frac{c - 6}{c^2 + 5c - 6}$$

9)
$$\frac{7d}{8d + 6} - \frac{2}{3d + 7}$$

5)
$$\frac{7r - 3}{6r^4 + 11r} - \frac{2r - 2}{6r^4 + 11r}$$

10)
$$\frac{7h^2 + 5}{4h^6 + 11h^2} + \frac{2h^2 - 2}{4h^6 + 11h^2}$$



Name : _____

Score : _____

Teacher : _____

Date : _____

Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

$$1) \quad \frac{4k - 3}{5k^2 + 3} + \frac{8k}{5k^2 + 3}$$

$$\frac{3(4k - 1)}{5k^2 + 3}$$

$$6) \quad \frac{6x^3 - 7}{8x^6 + 15} - \frac{5x^3}{8x^6 + 15}$$

$$\frac{x^3 - 7}{8x^6 + 15}$$

$$2) \quad \frac{4z^3 + 4}{7z^4 + 8} + \frac{6z^3}{7z^4 + 8}$$

$$\frac{2(5z^3 + 2)}{7z^4 + 8}$$

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

$$= \frac{2g^2 - 32g - 15}{5(g - 1)(g - 5)}$$

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

$$\frac{-5q + 4}{5q^4 - 13}$$

$$8) \quad \frac{s + 3}{s^2 - 8s + 15} + \frac{8s}{2s}$$

$$\frac{4s^2 - 31s + 63}{(s - 5)(s - 3)}$$

$$4) \quad 9 + \frac{c - 6}{c^2 + 5c - 6}$$

$$\frac{9c^2 + 46c - 60}{(c - 1)(c + 6)}$$

$$9) \quad \frac{7d}{8d + 6} - \frac{2}{3d + 7}$$

$$\frac{3(7d^2 + 11d - 4)}{2(4d + 3)(3d + 7)}$$

$$5) \quad \frac{7r - 3}{6r^4 + 11r} - \frac{2r - 2}{6r^4 + 11r}$$

$$\frac{5r - 1}{r(6r^3 + 11)}$$

$$10) \quad \frac{7h^2 + 5}{4h^6 + 11h^2} + \frac{2h^2 - 2}{4h^6 + 11h^2}$$

$$\frac{3(3h^2 + 1)}{h^2(4h^4 + 11)}$$

