

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

1) 
$$\frac{7n + 5c}{5n^2c^2} - \frac{7n + 4c}{5n^2c^2}$$

6) 
$$\frac{3g + 9z}{4g^3} + \frac{5g + 7z}{4g^3}$$

2) 
$$\frac{7y^2 - 5r^2}{8y^6} - \frac{2y^2 - 7r^2}{8y^6}$$

7) 
$$\frac{3z^3 + 7}{8z^7 - 11z^3} + \frac{7z^3 - 4}{8z^7 - 11z^3}$$

3) 
$$\frac{5b - 8}{2b^5 + 17b} - \frac{6b + 9}{2b^5 + 17b}$$

8) 
$$\frac{2h + 7}{7h^2 - 8} + \frac{5h}{7h^2 - 8}$$

4) 
$$\frac{8q - 6}{6q^2 + 13} - \frac{2q}{6q^2 + 13}$$

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

5) 
$$\frac{7x - 9h}{6x^3h^3} + \frac{7x - 8h}{6x^3h^3}$$

10) 
$$\frac{k}{6} + \frac{8k + 7}{k + 3}$$



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## Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

$$1) \quad \frac{7n + 5c}{5n^2c^2} - \frac{7n + 4c}{5n^2c^2}$$

$$\frac{1}{5n^2c}$$

$$6) \quad \frac{3g + 9z}{4g^3} + \frac{5g + 7z}{4g^3}$$

$$\frac{2(g + 2z)}{g^3}$$

$$2) \quad \frac{7y^2 - 5r^2}{8y^6} - \frac{2y^2 - 7r^2}{8y^6}$$

$$\frac{5y^2 + 2r^2}{8y^6}$$

$$7) \quad \frac{3z^3 + 7}{8z^7 - 11z^3} + \frac{7z^3 - 4}{8z^7 - 11z^3}$$

$$\frac{10z^3 + 3}{z^3(8z^4 - 11)}$$

$$3) \quad \frac{5b - 8}{2b^5 + 17b} - \frac{6b + 9}{2b^5 + 17b}$$

$$\frac{-b - 17}{b(2b^4 + 17)}$$

$$8) \quad \frac{2h + 7}{7h^2 - 8} + \frac{5h}{7h^2 - 8}$$

$$\frac{7(h + 1)}{7h^2 - 8}$$

$$4) \quad \frac{8q - 6}{6q^2 + 13} - \frac{2q}{6q^2 + 13}$$

$$\frac{6(q - 1)}{6q^2 + 13}$$

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

$$\frac{8p^2 + 14p - 9}{3(p + 2)}$$

$$5) \quad \frac{7x - 9h}{6x^3h^3} + \frac{7x - 8h}{6x^3h^3}$$

$$\frac{14x - 17h}{6x^3h^3}$$

$$10) \quad \frac{k}{6} + \frac{8k + 7}{k + 3}$$

$$\frac{k^2 + 51k + 42}{6(k + 3)}$$

