

Name : _____

Score : _____

Teacher : _____

Date : _____

Adding and Subtracting Rational Expressions

Add or Subtract the two expressions in each problem.

$$1) \quad \frac{3n^2 - 8}{2n^6 - 11n^2} + \frac{5n^2 - 6}{2n^6 - 11n^2}$$

$$6) \quad \frac{3s^3 - 5}{4s^5 + 6} + \frac{5s^3}{4s^5 + 6}$$

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

$$7) \quad \frac{h}{h+4} + \frac{3}{7h+1}$$

$$3) \quad \frac{5k^2 + 6}{7k^7 - 17k^2} + \frac{8k^2 + 7}{7k^7 - 17k^2}$$

$$8) \quad \frac{6c + 6}{c^2 - 3c - 18} + \frac{8c}{7c}$$

$$4) \quad -8 + \frac{q + 6}{q^2 - 10q + 24}$$

$$9) \quad \frac{g + 4}{g^2 - g - 12} + \frac{5g}{8g}$$

$$5) \quad 7 + \frac{x + 3}{x^2 + 4x - 21}$$

$$10) \quad \frac{4b}{9} + \frac{6b + 4}{5b + 7}$$



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$$1) \quad \frac{3n^2 - 8}{2n^6 - 11n^2} + \frac{5n^2 - 6}{2n^6 - 11n^2}$$

$$\frac{2(4n^2 - 7)}{n^2(2n^4 - 11)}$$

$$6) \quad \frac{3s^3 - 5}{4s^5 + 6} + \frac{5s^3}{4s^5 + 6}$$

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

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

$$\frac{7d^2 + 10d + 24}{7(d+8)(d+1)}$$

$$7) \quad \frac{h}{h+4} + \frac{3}{7h+1}$$

$$\frac{7h^2 + 4h + 12}{(h+4)(7h+1)}$$

$$3) \quad \frac{5k^2 + 6}{7k^7 - 17k^2} + \frac{8k^2 + 7}{7k^7 - 17k^2}$$

$$\frac{13(k^2 + 1)}{k^2(7k^5 - 17)}$$

$$8) \quad \frac{6c + 6}{c^2 - 3c - 18} + \frac{8c}{7c}$$

$$\frac{4c^2 + 9c - 51}{7(c+3)(c-6)}$$

$$4) \quad -8 + \frac{q+6}{q^2 - 10q + 24}$$

$$-\frac{8q^2 - 81q + 186}{(q-4)(q-6)}$$

$$9) \quad \frac{g+4}{g^2 - g - 12} + \frac{5g}{8g}$$

$$\frac{5g^2 + 3g - 28}{8(g+3)(g-4)}$$

$$5) \quad 7 + \frac{x+3}{x^2 + 4x - 21}$$

$$\frac{7x^2 + 29x - 144}{(x+7)(x-3)}$$

$$10) \quad \frac{4b}{9} + \frac{6b+4}{5b+7}$$

$$\frac{2(10b^2 + 41b + 18)}{9(5b+7)}$$

