

1. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

$$\frac{4s - 7}{s^2 + 9s + 20} - \frac{2s - 1}{-s - 4}$$

A. $\frac{2s^2 + 10s - 12}{(s+4)(s+5)}$

B. $\frac{2s^2 + 13s - 12}{(s+4)(s+5)}$

C. $\frac{2s^2 + 18s - 12}{(s+1)(s+5)(s-1)}$

D. $\frac{2s^2 + 6s - 12}{(s+1)(s+5)(s-1)}$

E. $\frac{2s^2 + 14s - 12}{(s+1)(s+5)(s-1)}$

F. $\frac{2s^2 + 19s - 12}{(s+1)(s+5)(s-1)}$

G. $\frac{2s^2 + 8s - 12}{(s+4)(s+5)}$

H. $\frac{2s^2 + 20s - 12}{(s+4)(s+5)}$

2. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

$$\frac{5y}{y^2 - 4y + 3} + \frac{3y + 2}{y^2 - 7y + 12}$$

A. $\frac{8y^2 - 25y - 2}{(y-3)(y-1)(y-4)}$

B. $\frac{8y^2 - 22y - 2}{(y-3)(y-1)(y-4)}$

C. $\frac{8y^2 - 24y - 2}{(y-3)(y-1)(y-6)}$

D. $\frac{8y^2 - 18y - 2}{(y-3)(y-1)(y-6)}$

E. $\frac{8y^2 - 16y - 2}{(y-3)(y-1)(y-6)}$

F. $\frac{8y^2 - 21y - 2}{(y-3)(y-1)(y-4)}$

G. $\frac{8y^2 - 23y - 2}{(y-3)(y-1)(y-6)}$

H. $\frac{8y^2 - 27y - 2}{(y-3)(y-1)(y-4)}$

3. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

$$\frac{2a - 4}{3a + 1} - \frac{6a - 7}{3a - 7}$$

A. $\frac{-12a^2 - 15a + 35}{(3a+1)(3a-7)}$

B. $\frac{-12a^2 - 5a + 35}{(3a+1)(3a-7)}$

C. $\frac{-12a^2 - 14a + 35}{(3a+1)(3a-7)}$

D. $\frac{-12a^2 - 17a + 35}{(3a+1)(3a-7)}$

E. $\frac{-12a^2 - 4a + 35}{(3a+1)(3a-7)}$

F. $\frac{-12a^2 - 18a + 35}{(3a+1)(3a-7)}$

G. $\frac{-12a^2 - 16a + 35}{(3a+1)(3a-7)}$

H. $\frac{-12a^2 - 11a + 35}{(3a+1)(3a-7)}$

4. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

$$5 - \frac{7}{a}$$

A. $\frac{-2}{a+1}$

B. $\frac{5a-7}{a}$

C. $\frac{a}{-2}$

D. $-2a$

E. $\frac{-2}{a}$

F. -2

G. $\frac{a}{5a-7}$

H. $\frac{5a-7}{a(a+1)}$

5. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

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

A. $\frac{7\mu^2 - 26\mu - 28}{\mu(\mu - 5)}$

B. $\frac{7\mu^2 - 18\mu - 28}{\mu(\mu - 5)(\mu - 1)}$

C. $\frac{7\mu^2 - 21\mu - 28}{\mu(\mu - 5)}$

D. $\frac{7\mu^2 - 23\mu - 28}{\mu(\mu - 5)(\mu - 1)}$

E. $\frac{7\mu^2 - 19\mu - 28}{\mu(\mu - 5)(\mu - 1)}$

F. $\frac{7\mu^2 - 22\mu - 28}{\mu(\mu - 5)}$

G. $\frac{7\mu^2 - 25\mu - 28}{\mu(\mu - 5)}$

H. $\frac{7\mu^2 - 27\mu - 28}{\mu(\mu - 5)(\mu - 1)}$

6. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

$$\frac{3\rho + 4}{\rho^2 - 2\rho + 1} + \frac{3\rho + 6}{\rho^2 - 7\rho + 6}$$

A. $\frac{6\rho^2 - 15\rho - 30}{(\rho - 1)(\rho - 7)(\rho - 6)}$

B. $\frac{6\rho^2 - 9\rho - 30}{(\rho - 1)(\rho - 7)(\rho - 6)}$

C. $\frac{6\rho^2 - 18\rho - 30}{(\rho - 1)(\rho - 1)(\rho - 6)}$

D. $\frac{6\rho^2 - 12\rho - 30}{(\rho - 1)(\rho - 7)(\rho - 6)}$

E. $\frac{6\rho^2 - 11\rho - 30}{(\rho - 1)(\rho - 1)(\rho - 6)}$

F. $\frac{6\rho^2 - 5\rho - 30}{(\rho - 1)(\rho - 1)(\rho - 6)}$

G. $\frac{6\rho^2 - 4\rho - 30}{(\rho - 1)(\rho - 7)(\rho - 6)}$

H. $\frac{6\rho^2 - 8\rho - 30}{(\rho - 1)(\rho - 1)(\rho - 6)}$

7. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

$$-\frac{2\eta + 4}{-\eta + 7} + \frac{2\eta - 5}{\eta^2 - 7\eta}$$

A. $\frac{2\eta^2 - 1\eta - 5}{(\eta - 7)\eta}$

B. $\frac{2\eta^2 + 5\eta - 5}{(\eta - 7)\eta}$

C. $\frac{2\eta^2 + 8\eta - 5}{(\eta - 7)\eta}$

D. $\frac{2\eta^2 + 6\eta - 5}{(\eta - 7)\eta}$

E. $\frac{2\eta^2 + 3\eta - 5}{(\eta - 2)\eta(\eta - 1)}$

F. $\frac{2\eta^2 - 5}{(\eta - 2)\eta(\eta - 1)}$

G. $\frac{2\eta^2 + 4\eta - 5}{(\eta - 2)\eta(\eta - 1)}$

H. $\frac{2\eta^2 + 13\eta - 5}{(\eta - 2)\eta(\eta - 1)}$

8. Perform the indicated operations and reduce the result to lowest terms. Assume the variables are restricted to values that prevent division by 0.

$$-\frac{h - 4}{-h - 1} + \frac{2h + 7}{h^2 + 2h + 1}$$

A. $\frac{h^2 + 1h + 3}{(h + 6)(h + 1)(h - 1)}$

B. $\frac{h^2 + 5h + 3}{(h + 1)(h + 1)}$

C. $\frac{h^2 - 2h + 3}{(h + 6)(h + 1)(h - 1)}$

D. $\frac{h^2 - 7h + 3}{(h + 6)(h + 1)(h - 1)}$

E. $\frac{h^2 - 8h + 3}{(h + 1)(h + 1)}$

F. $\frac{h^2 + 3}{(h + 6)(h + 1)(h - 1)}$

G. $\frac{h^2 - 1h + 3}{(h + 1)(h + 1)}$

H. $\frac{h^2 - 5h + 3}{(h + 1)(h + 1)}$