Fill in the blank with the missing numerator or denominator to make the equality a true statement.

1. $\frac{2}{7} = \frac{\quad}{35}$

2. $\frac{3}{5} = \frac{9x}{\quad}$

3. $\frac{5a}{3b^2c} = \frac{\quad}{18b^4c^2}$

4. $\frac{2x}{(x+1)} = \frac{\quad}{(x+1)(x-3)}$

5. $\frac{x}{(2x+3)} = \frac{\quad}{2x^2-7x-15}$

6. $\frac{(x+4)}{x+2} = \frac{\quad}{x^2-4}$

Add or Subtract the following fractions. Reduce the fraction to simplest form.

7. $\frac{3}{4} + \frac{a}{3} - \frac{b}{6}$

8. $x + \frac{x}{2} - \frac{2x^2}{3}$

9. $\frac{3}{a} + \frac{a}{a-2}$

10. $\frac{x+1}{x^2-9} + \frac{3}{x+3}$

11. $\dfrac{2x+1}{x^2+x-2}+\dfrac{x+2}{x^2+2x-3}$

12. $\dfrac{x+1}{2x+3}-\dfrac{x+2}{x-2}$

13. $\dfrac{a-3}{a^2-a}-\dfrac{a}{a-1}$

14. $\dfrac{2x}{x^2+3x-10}+\dfrac{x-4}{3x-6}$

15. $\dfrac{2x}{x^2+3x-10}+\dfrac{x-4}{3x-6}-\dfrac{1}{x-5}$

16. $\dfrac{1}{2z^2}-\dfrac{2-z}{z^3-z}-\dfrac{3}{z-1}$

ANSWERS

1. 10

2. $15x$

3. $30ab^2c$

4. $2x(x-3)$

5. $x(x-5)$

6. $(x+4)(x-2)$

7. $\dfrac{9+4a-2b}{12}$

8. $\dfrac{9x-4x^2}{6}$

9. $\dfrac{a^2+3a-6}{a\,(a-2)}$

10. $\dfrac{4x-8}{(x+3)\,(x-3)}$

11. $\dfrac{3\,x^2+11\,x+7}{(x+3)\,(x-1)\,(x+2)}$

12. $\dfrac{-x^2-8\,x-8}{(2\,x+3)\,(x-2)}$

13. $\dfrac{-a^2+a-3}{a\,(a-1)}$

14. $\dfrac{x^2+7\,x-20}{3\,(x-2)\,(x+5)}$

15. $\dfrac{x^3-x^2-64\,x+130}{3\,(x-5)\,(x-2)\,(x+5)}$

16. $\dfrac{-6z^3z^2-4z-1}{2z^2(z-1)(z+1)}$

Homework: Section 0.7, p. 45: #21-33(odd)