77. $\dfrac{x-7}{x+3} = \dfrac{10}{x+3} - 3$

78. $3x - 9 + \dfrac{x}{5} = 2x - 3$

79. $\dfrac{\frac{3x}{5} - 12}{x+1} = 6$

80. $\dfrac{x}{4} + 5 = \dfrac{2x}{5} - 2 - \dfrac{x}{30}$

81. $\dfrac{3}{x+1} = \dfrac{x}{x-1} - 1$

82. $\dfrac{5x}{8} - 5\,(x-20) = \dfrac{-2x + 18}{6}$

83. $x + \dfrac{x+1}{5} = x + \dfrac{x}{2}$

84. $3x - \dfrac{7-x}{8} = -1 + \dfrac{x-3}{4} + 2x$

85. $8 - \dfrac{3x}{10} + \dfrac{2x}{4} - \dfrac{5x}{8} = -9$

86. $\dfrac{x+1}{2} + \dfrac{3+x}{6} = 1 + \dfrac{x}{3}$

87. $\dfrac{3x}{5} - 2 + \dfrac{3x}{2} - \dfrac{x}{10} = 0$

88. $\dfrac{10}{x+5} + \dfrac{3+4x}{x+5} = 3$

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

90. $\dfrac{7x-3}{6} - \dfrac{3x-1}{4} = \dfrac{5x-1}{4}$

91. $\dfrac{4x-3}{6} - \dfrac{3x-1}{4} = \dfrac{4x-2}{3} - 1$

92. $\dfrac{3\,(x+1)}{4} - \dfrac{x+3}{6} + x = 2x + \dfrac{3-7x}{12}$

93. $\dfrac{2x}{5} - 2 - \dfrac{x}{3} = \dfrac{x}{10} - 3$

94. $\dfrac{15}{x+10} - \dfrac{5}{x+2} = 0$

95. $\dfrac{2}{x+1} + \dfrac{3x-3}{x^2-1} = \dfrac{2}{x-1} + \dfrac{7}{x+1}$

96. $\dfrac{2x+1}{4} - \dfrac{3x}{9} - 2 = \dfrac{3x-2}{4}$

97. $\dfrac{5}{x-1} - \dfrac{3}{x+4} - \dfrac{3}{x^2+3x-4} = \dfrac{5}{x-1}$

98. $\dfrac{15}{x-2} - \dfrac{12x+6}{x^2-4} = \dfrac{18}{x+2}$

99. $(a+x)\,(b-x) - a\,(b+a) + x^2 + a^2 = \dfrac{b^2 - ab}{a}$

100. $\dfrac{1}{x-a} + \dfrac{1}{x+a} = \dfrac{1}{x^2-a^2}$

101. $\dfrac{x}{2a} - 2 = \dfrac{1+x}{2}$

102. $\dfrac{1 + \frac{x+1}{x-1}}{2 - \frac{x-1}{x+1}} = 2$

103. $\dfrac{x}{3} + \dfrac{x-5}{2} - \dfrac{1}{4}x = \dfrac{5x-2}{2}$

104. $\dfrac{x-3}{3} - \dfrac{3\,(x-2)}{2} = \dfrac{x-3-(x+2)}{2}$

105. $\dfrac{x-3}{5} - \dfrac{x-3}{2} = \dfrac{x-3}{3} - \dfrac{x+3}{2}$

106. $\dfrac{x+1}{2} + \dfrac{5+x}{6} = 1 + \dfrac{9-2x}{3}$

107. $x\,(x-2) - \dfrac{x+2}{3} - \dfrac{x-2}{2} = (x-2)^2 - 4$

108. $x\,(x-2) - \dfrac{x+2}{3} - \dfrac{x-2}{2} = (x-2)^2 - 4x$

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

Sol: 59. x=4; 60. x=12; 61. x=28; 62. x=1; 63. x=4; 64. x=12; 65. x=30; 66. x=15; 67. x=9; 68. x=6; 69. x= 10; 70. x=2; 71. x=1; 72. x=12; 73. x=12; 74. x=-16/27; 75. x=120; 76. x=45; 77. x= 2; 78. x=5; 79. $\boxed{x=\frac{-10}{3}}$; 80. x=60; 81. x=2; 82. x=24; 83. x=2/3; 84. x=-1; 85. x=40; 86. x=0; 87. x=1; 88. x=2; 89. x=3; 90. x=0; 91. x=1; 92. x=0; 93. x=30; 94. x=2; 95. x=0; 96. x=-15/7; 97. x=0; 98. x=4; 99. x=b/a; 100. x=1/2; 101. x=5a/(1-a); 102. x=3; 103. x=-18/23; 104. x=27/7; 105. x=51/2; 106. x=2; 107. x=-2/7; 108. x=22/31; 109. x=-5

$x^4 - 25x^2 + 144 = 0 \rightarrow \pm 4; \pm 3$

$x^4 - 10x^2 + 9 \rightarrow x = \pm 3; \pm 1$

$4x^4 + 19x^2 - 5 = 0 \rightarrow x = \pm \frac{1}{2}$

$9x^4 + 5x^2 - 4 = 0 \rightarrow x = \pm \frac{2}{3}$

$x^4 + 5x^2 + 4 = 0 \rightarrow \not\exists$

$4x^4 - 13x^2 + 9 = 0 \rightarrow x = \pm \frac{3}{2}; \pm 1$