

# Quadratic Equations

Solve.

1.  $(3x + 2)(2x - 3) = (4x - 1)^2 - 14.$

2.  $y(5y + 22) + 15 = (2y + 5)^2.$

3.  $\frac{3}{4t} + \frac{4t}{3} = -\frac{13}{6}.$

5.  $\frac{4}{r-2} - \frac{7}{r-3} = \frac{2}{15}.$

4.  $\frac{6}{7-y} + \frac{4}{y} = -\frac{4}{3}.$

6.  $\frac{3w}{4-5w} - \frac{4-5w}{3w} = -\frac{5}{6}.$

7.  $\frac{2x-1}{x} = \frac{x}{x+4} - \frac{x-5}{x}.$

10.  $1 - \frac{x-2}{x+4} = \frac{6x}{5}.$

8.  $\frac{x-2}{x+5} - \frac{x+4}{x-3} = -\frac{7}{3}.$

11.  $\frac{a-5}{a-6} - 1 = \frac{a}{3}.$

9.  $\frac{a(a-1)}{2a+5} - \frac{2}{3} = \frac{a-1}{3}.$

12.  $\frac{3t}{4} - \frac{3}{2} = \frac{t-4}{t+3}.$

13.  $\frac{x}{x-1} + \frac{x-1}{x} = \frac{x^2+x-1}{x^2-x}.$

14.  $\frac{x}{x+2} - \frac{x}{x+3} = \frac{x^2+2x-2}{x^2+5x+6}.$

15.  $\frac{2r+1}{7-r} + \frac{r-9}{3r-1} = 1.$

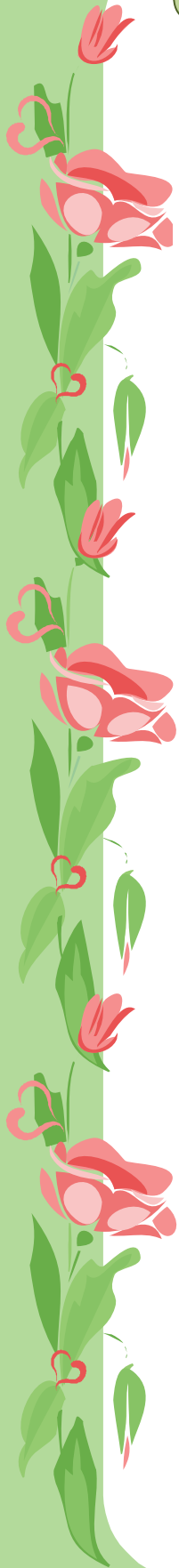
16.  $\frac{3w-13}{6-w} = \frac{5}{w-4} - 1.$

17.  $\frac{3-2v}{2v} = 8 + \frac{6}{4v-3}.$

18.  $\frac{3m+5}{2m-5} = 1 + \frac{2m+5}{3m-5}.$

19.  $\frac{5}{2v+3} + \frac{7}{3v-4} = \frac{8v^2-13v-64}{6v^2+v-12}.$

20.  $\frac{1}{x-2} + \frac{7x}{24(x+2)} + \frac{15}{4-x^2} = 0.$



# Quadratic Equations solutions

1)  $-\frac{7}{10}, 1$

2)  $-1 \pm \sqrt{11}$

3)  $-\frac{2}{5}, -\frac{1}{2}$

4)  $10.5, -2$

5)  $\frac{1}{2}, -18$

6)  $\frac{5}{19}, \frac{4}{3}$

7)  $\frac{-3 \pm \sqrt{57}}{2}$

8)  $7, -3$

9)  $5 \pm \sqrt{30}$

10)  $-5, 1$

11)  $3 \pm 2\sqrt{3}$

12)  $-\frac{2}{3}, 1$

13)  $2, 1$

14)  $1$

*(-2 does not work)*

15)  $-\frac{19}{8}, 3$

16)  $\frac{5 \pm \sqrt{29}}{2}$

17)  $\frac{1}{4}, \frac{1}{2}$

18)  $\frac{25 \pm 5\sqrt{21}}{2}$

19)  $6.5, -1.25$

20)  $-7\frac{3}{7}, 6$

Problems and Solutions  
from the book:  
**Second Course in  
Algebra**  
By: Webster Wells  
1913  
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