2.1

17. $3x+4=x$
$3x+4x=x-4$
$3x=x-4$
$3x-x=x-4$
$2x=-4$
$\frac{2x}{2}=\frac{-4}{2}$
$x=-2$

19. $2t-6=3-t$
$2t+t=3+6$
$\frac{3t}{3}=\frac{9}{3}$
$t=3$

21. $6-x=2x+9$
$6-9=2x+1$
$-3=2x+1$
$-3=3x$
$\frac{-3}{3}=\frac{3x}{3}$
$-1=x$

23. $3+2n=4n+7$
$2n=4n+7-3$
$2n-4n=7-3$
$-2n=4$
$\frac{-2n}{-2}=\frac{4}{-2}$
$n=-2$

25. $2(3+2x)=3(x-4)$
$6+4x=3x-12$
$4x-3x=-12-6$
$x=-18$

27. $8x-(3x+2)=3x-10$
$5x-2=3x-10$
$5x-3x=-10+2$
$\frac{2x}{2}=\frac{-8}{2}$
$x=-4$

29. $\frac{3}{2}x+2=\frac{1}{2}-\frac{1}{2}x$
$3x+4=-x+1$
$3x+x=1-4$
$\frac{4x}{4}=\frac{-3}{4}$
$x=-\frac{3}{4}$

31. $\frac{1}{2}x-5=\frac{3}{4}x$
$2x-20=3x$
$-20=3x-2x$
$-20=x$

33. $\frac{2}{3p}=\frac{1}{2}p+\frac{1}{3}$
$4p=3p+2$
$4p-3p=2$
$p=2$

35. $0.9t = 0.4 + 0.1t$

$9t = t + 4$

$9t - t = 4$

$\frac{8t}{8} = \frac{4}{8}$

$t = 0.5$

37. $\frac{2}{y} + \frac{4}{y} = 3$

$6 = 3y$

$\frac{6}{3} = \frac{3y}{3}$

$y = 2$

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

$4x + 4 = 0$

$4x = 0 - 4$

$\frac{4x}{4} = \frac{-4}{4}$

$x = -1$

47. $z(z^2+1) = 3 + z^3$

$z - 3 = 0$

$z = 0 + 3$

$z = 3$

34. $\frac{x+1}{3} + \frac{x+2}{7} = 2$

$10x + 13 = 42$

$10x = 42 - 13$

$\frac{10x}{10} = \frac{29}{10}$

$x = \frac{29}{10}$

41. $\frac{1}{2} + \frac{2}{x} = \frac{3}{4}$

$2x + 8 = 3x$

$2x = 3x - 8$

$2x - 3x = 8$

$\frac{-x}{-1} = \frac{-8}{-1}$

$x = 8$

48. $(x+7)(x-1) = (x+1)^2$

$4x - 8 = 0$

$4x = 0 + 8$

$\frac{4x}{4} = \frac{8}{4}$

$x = 2$

49. $\frac{x}{x-2} + 3 = \frac{2}{x-2}$

$4x - 6 = 2$

$4x = 2 + 6$

$\frac{4x}{4} = \frac{8}{4}$

$x = 2$

73. $\frac{1}{x-a} + \frac{1}{x+a} = \frac{2}{x-1}$

$(x-1)(2x) = (x-a)(x+a)$

$(x-1)(2x) = 2(x-a)(x+a)$

$2x \times x + 2x(-1) =$

$a \neq (x \frac{1}{2}, -x \frac{1}{2})$