563/1

$x^2 = 64$

$\sqrt{x^2} = \pm\sqrt{64}$

$x = \pm 8$

2) $(y-7)^2 = 0$

$\sqrt{(y-7)^2} = \pm\sqrt{0}$

$y - 7 = 0$

$y = 7$

13) $4y^2 + 7 = 19$

$4y^2 = 12$

$y^2 = 12/4 = 3$

$\sqrt{y^2} = \pm\sqrt{3}$

$y = \pm 3$

24) $5(m-8)^2 = 25$

$\frac{5}{5}(m-8)^2 = \frac{25}{5}$

$(m-8)^2 = 5$

$\sqrt{(m-8)^2} = \pm\sqrt{5}$

$m - 8 = \pm\sqrt{5}$

$m = 8 \pm \sqrt{5}$

562/11

$x^2 + 6x + 9$

$(1x)^2 + 2(3x) + 3^2$

$(x+3)^2$

652/5

① $x^2 - 14x + 49 = 0$

② $(1x)^2 + 2(x)(-7) + (-7)^2 = 0$

③ $(x-7)^2 = 0$

④ $\sqrt{(x-7)^2} = \pm\sqrt{0}$

⑤ $x - 7 = \pm 0$

⑥ $x = 7$

563/25

1 $x^2 + 6x + 9 = 16$

2 $(x+3)^2 = 16$

3 $\sqrt{(x+3)^2} = \pm\sqrt{16}$

4. $x + 3 = \pm 4$

5. $x = -3 \pm 4$

6 $x = -7, 1$.

563/29

$\frac{1}{5}x^2 - \frac{5}{49} = 0$

$\frac{1}{5}x^2 = \frac{5}{49}$

$x^2 = \frac{25}{49}$

$x = \pm\frac{5}{7}$

563/36 $5(t+2)^2 = \frac{3}{5}$

$(t+2)^2 = \frac{3}{25}$

$\sqrt{(t+2)^2} = \pm\sqrt{\frac{3}{25}}$ 3/4

$t + 2 = \pm\frac{\sqrt{3}}{5}$

$t = -2 \pm \frac{\sqrt{3}}{5}$ or $t = \frac{-10 \pm \sqrt{3}}{5}$

563/40

$7y^3 - 28y = 0$

① $7y(y^2 - 4) = 0$

② $7y(y-2)(y+2) = 0$

③ $7y = 0$, $y - 2 = 0$, $y + 2 = 0$

④ $y = 0$, $y = 2$, $y = -2$

563/45

$2(7x-2)^2 + 5 = 11$ ⑧ $x = \frac{2 \pm \sqrt{3}}{7}$

$2(7x-2)^2 = 11 - 5$ ①

$2(7x-2)^2 = 6$ ②

$(7x-2)^2 = 3$ ③

$\sqrt{(7x-2)^2} = \pm\sqrt{3}$ ④

$7x - 2 = \pm 3$ ⑤

$7x = 2 \pm \sqrt{3}$ ⑥

1) $\frac{1}{5}r^2 - 2 = \frac{5}{6}$ 563/31

2) $30\left(\frac{1}{5}r^2\right) - 30 \cdot 2 = 30 \cdot \frac{5}{6}$

3) $6r^2 - 60 = 25$

4) $6r^2 = 25 + 60$

5) $6r^2 = 85$

6) $r^2 = \frac{85}{6}$

7) $r = \pm\sqrt{\frac{85}{6}}$

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21) $\left(z - \frac{3}{5}\right)^2 = \frac{7}{16}$ 563/39

2) $\sqrt{\left(z - \frac{3}{5}\right)^2} = \pm\sqrt{\frac{7}{16}}$

3) $z - \frac{3}{5} = \pm\frac{\sqrt{7}}{\sqrt{16}}$

4) $z = \frac{3}{5} \pm \frac{\sqrt{7}}{4}$

5) $z = \frac{3}{5} + \frac{\sqrt{7}}{4}, z = \frac{3}{5} - \frac{\sqrt{7}}{4}$

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3) 1) $x^2 - 14x + 49 = 0$ 562/5

2) $(1x)^2 + 2(1x)(-7) + (-7)^2 = 0$

3) $(x-7)^2 = 0$ $(x-7)^2$ is the Question in book

4) $\sqrt{(x-7)^2} = \sqrt{0}$ ↑ extra only here

5) $x - 7 = 0$

6) $x = 7$

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4) 1) $x^2 - 3x = 18$ 565/Ex2

2) $\left(x - \frac{3}{2}\right)^2 - \left(\frac{-3}{2}\right)^2 = 18$

3) $\left(x - \frac{3}{2}\right)^2 - \frac{9}{4} = 18$

4) $\left(x - \frac{3}{2}\right)^2 = 18 + \frac{9}{4}$

5) $\sqrt{\left(x - \frac{3}{2}\right)^2} = \frac{18 \cdot 4}{4} + \frac{9}{4}$

6) $x - \frac{3}{2} = \sqrt{\frac{72+9}{4}}$

7) $x - \frac{3}{2} = \sqrt{\frac{72}{4}}$

8) $x = \frac{3}{2} \pm \frac{\sqrt{72}}{\sqrt{4}}$

9) $x = \frac{3}{2} \pm \frac{\sqrt{36 \cdot 2}}{2}$

10) $x = \frac{3}{2} \pm \frac{6\sqrt{2}}{2}$

11) $x = \frac{3}{2} \pm 3\sqrt{2}$

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5) 1) $x^2 - 4x = 17$ 566/1

2) $(x-2)^2 - (-2)^2 = 17$

3) $(x-2)^2 - 4 = 17$

4) $(x-2)^2 = 17 + 4$

5) $(x-2)^2 = 21$

6) $\sqrt{(x-2)^2} = \pm\sqrt{21}$

7) $x - 2 = \pm\sqrt{21}$

8) $x = 2 \pm \sqrt{21}$

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6) 1) $w^2 + w = 3$

2) $\left(w + \frac{1}{2}\right)^2 - \left(\frac{1}{2}\right)^2 = 3$

3) $\left(w + \frac{1}{2}\right)^2 - \frac{1}{4} = 3$

4) $\left(w + \frac{1}{2}\right)^2 = 3 + \frac{1}{4}$

5) $\left(w + \frac{1}{2}\right) = \frac{12}{4} + \frac{1}{4}$

6) $\left(w + \frac{1}{2}\right)^2 = \frac{13}{4}$

7) $\sqrt{\left(w + \frac{1}{2}\right)^2} = \pm\sqrt{\frac{13}{4}}$

8) $w + \frac{1}{2} = \pm\frac{\sqrt{13}}{2}$

9) $w = -\frac{1}{2} \pm \frac{\sqrt{13}}{2}$

10) $w = \frac{-1 \pm \sqrt{13}}{2}$ 566/10

$c^2 - 7c - 2 = 4$

$c^2 - 7c = 6$

$\left(c - \frac{7}{2}\right)^2 - \frac{49}{4} = 6$

$\left(c - \frac{7}{2}\right)^2 = 6 + \frac{49}{4}$

$\left(c - \frac{7}{2}\right)^2 = \frac{24+49}{4}$

$c = \frac{7}{2} \pm \sqrt{\frac{73}{4}}$

$c = \frac{7}{2} \pm \frac{\sqrt{73}}{2}$

566/21

$n^2 - 3 = \frac{11n}{2}$

① $n^2 - \frac{11}{2}n = 3$

② $\left(n - \frac{11}{4}\right)^2 - \frac{121}{16} = 3$

③ $\left(n - \frac{11}{4}\right)^2 = 3 + \frac{121}{16}$

④ $\left(n - \frac{11}{4}\right)^2 = \frac{48 + 121}{16}$

⑤ $\left(n - \frac{11}{4}\right)^2 = \frac{169}{16}$

⑥ $\sqrt{\left(n - \frac{11}{4}\right)^2} = \pm \frac{13}{4}$

⑦ $n = \frac{11}{4} \pm \frac{13}{4}$

⑧ $n = \frac{11+13}{4}$, $n = \frac{11}{4} - \frac{13}{4}$

⑨ $n = \frac{24}{4}$, $n = -\frac{2}{4}$

⑩ $n = 6$, $n = -\frac{1}{2}$

566

$x = -3$