かっこがある比例式と１次方程式

1 次の比例式を解きなさい。

① $(x+9):63 = 2:7$

② $6:(x-2) = 8:4$

③ $15:6 = (x+6):4$

④ $8:24 = 5:(x+9)$

⑤ $(x+8):6 = 20:8$

⑥ $42:(x+2) = 12:2$

⑦ $6:12 = (x+3):14$

⑧ $7:3 = 21:(x+2)$

1 次の比例式を解きなさい。

① $(x+9):63 = 2:7$

$(x+9) \times 7 = 63 \times 2$

$7x + 63 = 126$

$7x = 126 - 63$

$7x = 63$

$x = 9$

② $6:(x-2) = 8:4$

$6 \times 4 = (x-2) \times 8$

$24 = 8x - 16$

$8x = 24 + 16$

$8x = 40$

$x = 5$

③ $15:6 = (x+6):4$

$15 \times 4 = 6 \times (x+6)$

$60 = 6x + 36$

$6x = 60 - 36$

$6x = 24$

$x = 4$

④ $8:24 = 5:(x+9)$

$8 \times (x+9) = 24 \times 5$

$8x + 72 = 120$

$8x = 120 - 72$

$8x = 48$

$x = 6$

⑤ $(x+8):6 = 20:8$

$(x+8) \times 8 = 6 \times 20$

$8x + 64 = 120$

$8x = 120 - 64$

$8x = 56$

$x = 7$

⑥ $42:(x+2) = 12:2$

$42 \times 2 = (x+2) \times 12$

$84 = 12x + 24$

$12x = 84 - 24$

$12x = 60$

$x = 5$

⑦ $6:12 = (x+3):14$

$6 \times 14 = 12 \times (x+3)$

$84 = 12x + 36$

$12x = 84 - 36$

$12x = 48$

$x = 4$

⑧ $7:3 = 21:(x+2)$

$7 \times (x+2) = 3 \times 21$

$7x + 14 = 63$

$7x = 63 - 14$

$7x = 49$

$x = 7$