Solve each proportion, and leave the answer as a fraction in simplest form.

1. \( \frac{m+6}{9} = \frac{6}{8} \)
   \( 8m+48 = 54 \)
   \( m = \frac{6}{8} = \frac{3}{4} \)

2. \( \frac{4x-9}{3} = \frac{2x-7}{5} \)
   \( 20x - 45 = 6x - 21 \)
   \( 14x = 24 \)
   \( x = \frac{24}{14} = \frac{12}{7} \)

3. \( \frac{5x-1}{4x+2} = \frac{8}{5} \)
   \( 25x - 5 = 32x + 16 \)
   \( -21 = 7x \)
   \( -3 = x \)

4. \( \frac{9}{7} = \frac{6k+2}{5k-3} \)
   \( 45k - 27 = 42k + 14 \)
   \( 3k = 41 \)
   \( k = \frac{41}{3} \)

Solve each proportion, and round decimal answers to the nearest hundredth.

5. \( \frac{2a-5}{9} = \frac{a-4}{8} \)
   \( 16a - 40 = 9a - 36 \)
   \( 7a = 4 \)
   \( a = \frac{4}{7} \)

6. \( \frac{8x+3}{6} = \frac{4x-1}{3} \)
   \( 24x + 9 = 24x - 6 \)
   \( 0x = -15 \)
   \( \text{No Solution} \)

7. \( \frac{4.9}{b} = \frac{8.1}{7.6} \)
   \( 8.1b = 37.24 \)
   \( b \approx 4.60 \)

8. \( \frac{7x-3}{5} = \frac{2x+1}{3} \)
   \( 21x - 9 = 10x + 5 \)
   \( 11x = 14 \)
   \( x = \frac{14}{11} \approx 1.27 \)

9. \( \frac{4.2x}{3} = \frac{1.2x+5}{2} \)
   \( 8.4x = 3.6x + 15 \)
   \( 4.8x = 15 \)
   \( x = \frac{15}{4.8} \approx 3.13 \)

10. \( \frac{8x-1}{3} = \frac{5x+2}{9} \)
    \( 72x - 9 = 15x + 6 \)
    \( 57x = 15 \)
    \( x = \frac{15}{57} = \frac{5}{19} \approx 0.26 \)