Name _____ Name _____

Partner A:	**Partner B:**
Q1: $\frac{4}{3}x+6=\frac{3}{4}x+13$	Q1: $\frac{5}{6}x-13=\frac{1}{4}x-6$
Q2: $-\frac{2}{3}(2x-5)+4x=-2(10-3x)$	Q2: $4x+\frac{9}{10}(x+3)=\frac{3x+7}{2}+23$

Q3: $\dfrac{5}{3x-8}=\dfrac{15}{8(x-1)}$

Q3: $\dfrac{x+8}{4}=\dfrac{20-2x}{-2}$

Q4: $\dfrac{8x}{3}+\dfrac{3x+5}{2}=\dfrac{5}{6}(6+4x)$

Q4: $\dfrac{3x-1}{8}=\dfrac{4x+3}{4}-\dfrac{3(2x+5)}{12}$

Name _____ Name _____

Partner A:

Q1: $\frac{4}{3}x+6=\frac{3}{4}x+13$

$\frac{4x}{3}+\frac{18}{3}=\frac{3x}{4}+\frac{52}{4}$

$\frac{4x+18}{3}=\frac{3x+52}{4}$

$16x+72=9x+156$
$-9x \quad -9x$
$7x+72=156$
$-72 \quad -72$
$\frac{7x}{7}=\frac{84}{7}$
$x=12$

Q2: $-\frac{2}{3}(2x-5)+4x=-2(10-3x)$

$-\frac{4x}{3}+\frac{10}{3}+\frac{4x}{1}\left(\frac{3}{3}\right)=\frac{-20+6x}{1}$

$\frac{-4x+10+12x}{3}=\frac{-20+6x}{1}$

$\frac{8x+10}{3}=\frac{-20+6x}{1}$

$8x+10=-60+18x$
$-8x \quad -8x$
$10=-60+10x$
$+60 \quad +60$
$\frac{70}{10}=\frac{10x}{10}$
$7=x$

Partner B:

Q1: $\frac{5}{6}x-13=\frac{1}{4}x-6$

$\frac{10}{12}x-13=\frac{3}{12}x-6$
$-\frac{3}{12}x \quad -\frac{3}{12}x$
$\frac{7}{12}x-13=-6$
$+13 \quad +13$
$\frac{12}{7}\cdot\frac{7}{12}x=7\cdot\frac{12}{7}$
$x=12$

Q2: $4x+\frac{9}{10}(x+3)=\frac{3x+7}{2}+23$

$4x+\frac{9x}{10}+\frac{27}{10}-23=\frac{3x+7}{2}$

$\frac{10}{1}\left(\frac{40x}{10}+\frac{9x}{10}+\frac{27}{10}-\frac{230}{10}\right)=\left(\frac{5(3x+7)}{10}\right)\frac{10}{1}$

$40x+9x+27-230=5(3x+7)$

$49x-203=15x+35$
$-15x \quad -15x$
$34x-203=35$
$+203 \quad +203$
$\frac{34x}{34}=\frac{238}{34}$
$x=7$

Q3: $\frac{5}{3x-8} = \frac{15}{8(x-1)}$

$15(3x-8) = 40(x-1)$

$45x - 120 \mid 40x - 40$

$-40x \qquad -40x$

$5x - 120 = -40$

$+120 \quad +120$

$\frac{5x}{5} = \frac{80}{5}$

$\boxed{x = 16}$

Q3: $\frac{x+8}{4} = \frac{20-2x}{-2}$

$-2(x+8) = 4(20-2x)$

$-2x - 16 = 80 - 8x$

$+2x \qquad +2x$

$-16 = 80 - 6x$

$-80 \quad -80$

$\frac{-96}{-6} = \frac{-6x}{-6}$

$\boxed{16 = x}$

Q4: $\frac{2}{3}\left(\frac{8x}{3} + \left(\frac{3x-5}{2}\right)\frac{3}{3}\right) + \frac{5}{6}(3-5x)$ $\quad 6+4x$

$6\left(\frac{16x}{6} + \frac{3(3x+5)}{6}\right) = \left(\frac{5(6+4x)}{6}\right)6$

$16x + 3(3x+5) = 5(6+4x)$

$16x + 9x + 15 = 30 + 20x$

$25x + 15 = 30 + 20x$

$-20x \qquad -20x$

$5x + 15 = 30$

$-15 \quad -15$

$\frac{5x}{5} = \frac{15}{5}$

$\boxed{x = 3}$

Q4: $\frac{3x-1}{8} = \left(\frac{4x+3}{4}\right)\frac{3}{3} - \frac{3(2x+5)}{12}$

$\frac{3x-1}{8} = \frac{3(4x+3)}{12} - \frac{3(2x+5)}{12}$

$\frac{3x-1}{8} = \frac{12x+9-6x-15}{12}$

$\frac{3x-1}{8} = \frac{6x-6}{12}$

$36x - 12 = 48x - 48$

$-36x \qquad -36x$

$-12 = 12x - 48$

$+48 \qquad +48$

$\frac{36}{12} = \frac{12x}{12}$

$\boxed{3 = x}$