Name : _____

Systems of Equations

Use the best method to solve each system of equations.

1) $\frac{4}{y} + \frac{5}{z} = 17$

$\frac{2}{y} + \frac{3}{z} = 10$

2) $2 = \frac{10}{a} + \frac{1}{b}$

$\frac{2}{a} + \frac{1}{b} = 0$

3) $-\frac{1}{c} = 2 + \frac{1}{d}$

$-\frac{1}{c} + \frac{1}{d} = 1$

4) $\frac{5}{s} + \frac{3}{t} = 16$

$\frac{4}{t} + \frac{5}{s} = 20$

5) $-\frac{8}{x} - \frac{1}{y} = -10$

$\frac{6}{x} + \frac{1}{y} = 8$

6) $3r + 4s = rs$

$5r + 6s = rs$

7) $14 = \frac{3}{p} + \frac{2}{q}$

$\frac{7}{p} + \frac{8}{q} = 26$

8) $-\frac{9}{u} - \frac{2}{v} - 6 = 0$

$\frac{2}{v} + \frac{6}{u} = -5$

Name : _____

Answer key

Systems of Equations

Sheet 1

Use the best method to solve each system of equations.

1) $\frac{4}{y} + \frac{5}{z} = 17$

$\frac{2}{y} + \frac{3}{z} = 10$

$\left(2, \frac{1}{3}\right)$

2) $2 = \frac{10}{a} + \frac{1}{b}$

$\frac{2}{a} + \frac{1}{b} = 0$

(4, –2)

3) $-\frac{1}{c} = 2 + \frac{1}{d}$

$-\frac{1}{c} + \frac{1}{d} = 1$

$\left(-\frac{2}{3}, -2\right)$

4) $\frac{5}{s} + \frac{3}{t} = 16$

$\frac{4}{t} + \frac{5}{s} = 20$

$\left(\frac{5}{4}, \frac{1}{4}\right)$

5) $-\frac{8}{x} - \frac{1}{y} = -10$

$\frac{6}{x} + \frac{1}{y} = 8$

$\left(1, \frac{1}{2}\right)$

6) $3r + 4s = rs$

$5r + 6s = rs$

(1, –1) or (0, 0)

7) $14 = \frac{3}{p} + \frac{2}{q}$

$\frac{7}{p} + \frac{8}{q} = 26$

$\left(\frac{1}{6}, -\frac{1}{2}\right)$

8) $-\frac{9}{u} - \frac{2}{v} - 6 = 0$

$\frac{2}{v} + \frac{6}{u} = -5$

$\left(-3, -\frac{2}{3}\right)$