

Math 114
Midterm 1
Review

ANSWERS

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|---|--|---|--|
| [1] $x = 2$ or $x = -3$ | [2] no solution | [3] $-1 < x < 4$ | [4] $x < -5/2$ or $x > 2$ |
| [5] $(4, -3)$ | [6] $(-2, 5)$ | [7] $(11, 3)$ | [8] $\frac{x}{12} = \frac{8}{3}, x = 32$ |
| [9] $\frac{5}{4} = \frac{x+7}{12}, x = 8$ | [10] $\frac{x}{6} = \frac{x+2}{12}, x = 2$ | [11] $\frac{x}{7} = \frac{1}{x+6}, x = 1$ or $x = -7$ | |
| [12] $\frac{387}{24} = \frac{x}{17}$ | [13] $\frac{185}{13} = \frac{243}{x}$ | [14] $\frac{3}{20} = \frac{x}{37}$ | [15] $\frac{17}{19} = \frac{68}{x}$ |
| [16] $x = 25$ | [17] $x = 3$ | [18] $x = 5$ | [19] $\frac{x(x+12)}{3(x+6)}$ |
| [20] $\frac{3x+1}{x+5}$ | [21] $\frac{7-2x}{x+2}$ | [22] $\frac{9-x}{7x-6}$ | [23] $\frac{x(2x-1)}{x+4}$ |
| [24] $\frac{x-2}{x+1}$ | [25] $\frac{x-7}{x+3}$ | [26] $\frac{(3x+5)(x+1)}{4}$ | [27] $\frac{x-3}{2}$ |
| [28] $\frac{x-4}{x-3}$ | [29] $\frac{x^2 - x + 4}{(x+2)(x-3)}$ | [30] $\frac{x-3}{x-1}$ | [31] $\frac{6x}{(x-1)(x-6)(x+2)}$ |
| [32] $x = 2$ | [33] $x = 4$ or $x = -7$ | [34] $x = \frac{2c}{b-a}$ | [35] $x = \frac{3y}{4+2y}$ |