

# Basic Equations

1. Solve each of the following equations

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|------------------|------------------|------------------|------------------|
| (a) $x + 2 = 7$  | (b) $a + 3 = 5$  | (c) $p + 2 = 11$ | (d) $x + 1 = 0$  |
| (e) $a - 2 = 3$  | (f) $b - 4 = 1$  | (g) $r - 5 = 8$  | (h) $y - 4 = 3$  |
| (i) $x + 7 = 4$  | (j) $a + 8 = 6$  | (k) $w + 4 = 1$  | (l) $t + 5 = 3$  |
| (m) $x - 3 = -2$ | (n) $a - 5 = -3$ | (o) $r - 2 = -6$ | (p) $x - 3 = -1$ |

2. Solve each equation

- |                |                |                |                |
|----------------|----------------|----------------|----------------|
| (a) $3a = 18$  | (b) $4x = 20$  | (c) $5a = 35$  | (d) $6r = 42$  |
| (e) $7p = 49$  | (f) $8g = 80$  | (g) $4k = 32$  | (h) $9y = 36$  |
| (i) $6x = -18$ | (j) $4p = -28$ | (k) $7h = -56$ | (l) $5p = -60$ |
| (m) $2p = 10$  | (n) $6r = 15$  | (o) $4t = 30$  | (p) $8y = 36$  |

3. Solve by balancing out the equation

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|-------------------|-------------------|-------------------|--------------------|
| (a) $3x + 1 = 13$ | (b) $5x + 2 = 32$ | (c) $7x + 5 = 47$ | (d) $8x + 4 = 44$  |
| (e) $4x - 1 = 19$ | (f) $5x - 6 = 39$ | (g) $6x - 2 = 52$ | (h) $8x - 7 = 9$   |
| (i) $4a + 1 = -7$ | (j) $6p + 2 = -4$ | (k) $5a - 2 = 7$  | (l) $3s - 4 = -16$ |

4. Solve the following equations

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|------------------------|------------------------|------------------------|
| (a) $5x + 1 = 2x + 7$  | (b) $8x + 5 = 3x + 20$ | (c) $7x + 3 = x + 21$  |
| (d) $4a + 5 = a + 17$  | (e) $3s - 2 = s + 12$  | (f) $5e - 4 = 2e + 23$ |
| (g) $6y + 2 = 4y + 22$ | (h) $5x - 3 = x + 29$  | (i) $5f + 8 = 2f + 2$  |
| (j) $6a + 11 = 5a + 8$ | (k) $4g - 3 = g - 21$  | (l) $9x - 4 = 2x - 25$ |

5. Solve each equation (*remember: letter terms on one side, numbers on the other*)

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|--------------------|--------------------|---------------------|--------------------|
| (a) $5x = 2x + 18$ | (b) $7x = 2x + 35$ | (c) $10x = 3x + 63$ | (d) $7x = x + 48$  |
| (e) $4x = x + 18$  | (f) $6x = x - 25$  | (g) $5x = 3x - 8$   | (h) $8x = 3x - 40$ |
| (i) $5x = 14 - 2x$ | (j) $6x = 27 - 3x$ | (k) $4x = 5 - x$    | (l) $2x = 36 - 4x$ |
| (m) $x = 12 - 3x$  | (n) $3x = 64 - 5x$ |                     |                    |