

Problems for Gateway #3: Solving Linear Equations

1. The value of x that solves the equation:

$$2x + 1 = x - 3$$

is:

- | | |
|--------|--------|
| (a) 2 | (b) 7 |
| (c) 0 | (d) -4 |
| (e) -3 | |

2. The value of x that solves the equation:

$$3x - 2 = x + 8$$

is:

- | | |
|--------|-------|
| (a) -2 | (b) 5 |
| (c) -6 | (d) 3 |
| (e) 1 | |

3. The value of x that solves the equation:

$$8x - 1 = 3x + 4$$

is:

- | | |
|--------|--------|
| (a) 1 | (b) -4 |
| (c) 2 | (d) 0 |
| (e) -1 | |

4. The value of x that solves the equation:

$$2x + 11 = 3x - 2$$

is:

- | | |
|--------|---------|
| (a) 3 | (b) 10 |
| (c) 13 | (d) -12 |
| (e) -1 | |

5. The value of x that solves the equation:

$$4x + 7 = 9x - 3$$

is:

- | | |
|--------|-------|
| (a) 0 | (b) 7 |
| (c) -2 | (d) 1 |
| (e) 2 | |

6. The value of x that solves the equation:

$$x - 8 = 2x$$

is:

- | | | | |
|-----|----|-----|----|
| (a) | 2 | (b) | -1 |
| (c) | -8 | (d) | -3 |
| (e) | 9 | | |

7. The value of x that solves the equation:

$$2x - 8 = 3x$$

is:

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|-----|----|-----|---|
| (a) | -8 | (b) | 4 |
| (c) | 3 | (d) | 9 |
| (e) | -3 | | |

8. The value of x that solves the equation:

$$9x + 2 = 38 + 5x$$

is:

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|-----|---|-----|----|
| (a) | 2 | (b) | -1 |
| (c) | 8 | (d) | 0 |
| (e) | 9 | | |

9. The value of x that solves the equation:

$$3x - 1 = 2x + 2$$

is:

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|-----|----|-----|----|
| (a) | 0 | (b) | -1 |
| (c) | -2 | (d) | 3 |
| (e) | 2 | | |

10. The value of x that solves the equation:

$$11x + 13 = x - 7$$

is:

- | | | | |
|-----|---|-----|----|
| (a) | 4 | (b) | -2 |
| (c) | 1 | (d) | 9 |
| (e) | 3 | | |

ANSWERS:

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|----|---|-----|---|----|---|----|---|
| 1. | D | 2. | B | 3. | A | 4. | C |
| 5. | E | 6. | C | 7. | A | 8. | E |
| 9. | D | 10. | B | | | | |