# *Algebra & Linear Equation Test*

Name: Div.: Score:

Write out the following in equation form:

1. Five less than four times a number is fifteen.
2. The quotient of four more than a number and three is nine.

Evaluate the following expressions using $x=3, y=2$

|  |  |
| --- | --- |
| 1. $3x-6=$
 | 1. $x-2y=$
 |
| 1. $2x+y=$
 | 1. $xy-y=$
 |

### Graphing Linear Equations

1. Fill in the following table of values and graph the line.

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 y = 3*x*– *3*

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| *x* | *y* |
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1. Fill in the following table of values and graph the line.

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 y = 2*x* – *2*

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| *x* | *y* |
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1. Create an equation from the following table of values and graph the line.

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 y =

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| *x* | *y* |
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1. Create an equation and table of values from the line.

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 y =

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| *x* | *y* |
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| Create an equation to fit the Table of Values: |  |
| 1.

|  |  |
| --- | --- |
| *x* | *y* |
| 1 | 3 |
| 2 | 5 |
| 3 | 7 |

Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| *x* | *y* |
| 5 | 6 |
| 6 | 9 |
| 7 | 12 |

Equation: ­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| Expand & Simplify: |  |
| 1. 2$\left(x-4\right)-5x+7$
 | 1. $2\left(x+2\right)+2x-5$
 |
| Solve for x. Check your answer using substitution: |  |
| 1. 14 = 3*x* – 6
 | 1. 4*x* – 8 = 10
 |
| 1. $\frac{x}{3}$ – 5 = 4
 | 1. $\frac{x}{4}$ + 6 = (– 1)
 |
| 1. $3\left(x-2\right)=-9$
 | 1. 2(*x* + 2) = 10
 |

1. If Jennifer doubled the money that she has in her account now and then took out $80, she would have $200 left in her account. How much money does she have in her account now?
2. Cost of a concert ticket for a student is $3 less than half of an adult ticket. If a student ticket costs $6, how much does an adult ticket cost?

**BONUS**

Find the Slope & Y-intercept:

1. *x* + 4 *= y* Slope (m): y-intercept (+b):
2. y = $\frac{x}{3}$ – 4 Slope (m): y-intercept (+b):