Algebra Review

- you must balance your equations
- whatever you do to one side of the equation you must do to the other side.

subtract from both sides

$$4 + k = 8$$

$-4 \quad\quad -4$

$k = 4$

- check your answer by substituting the value of "k" for "k" in the original equation

$$4 + k = 8$$

$$4 + (4) = 8 \checkmark$$

- if it is a true statement, then you are correct

add to both sides

$$k - 7 = 12$$

$+7 \quad +7$

$0 = \quad 19 =$

$k = 19$

check your answer by substituting the value of "k" for "k" in the original equation

$$k - 7 = 12$$

$$(19) - 7 = 12 \checkmark$$

if it is a true statement, then you are correct

divide both sides by

$\frac{6k}{6} = \frac{18}{6}$ ÷3 means $6*k = 18$ (÷6 on both sides)

$6 \div 6 = 1$ and

$1 * k = k$

$k = 3$

check your answer by substituting the value of "k" for "k" in the original equation

$6K = 18$

$6(3) = 18$ ✓

this means $6*3$

if it is a true statement, then you are correct

multi-step equations

$$4A - 5 = 19$$

$$4A - 5 = 19$$

$+5 = 0$ $\quad +5 = 24$

First, we add 5 to both sides.

$$\frac{4A}{4} = \frac{24}{4}$$

$$A = 6$$

Second, we divide both sides by 4 to isolate "A"

- always check your answer

$$4A - 5 = 19$$

$$4(6) - 5 = 19$$

$$24 - 5 = 19 \checkmark$$

Square both sides

$$\sqrt{Q} = 7$$

$$(\sqrt{Q})^2 = (7)^2$$

this will get "Q" by itself

$$Q = 49$$

check: $\sqrt{49} = 7$

the square root of 49 equals 7.

(what number multiplied by itself equals 49?)

take the square root of both sides

$$81 = R^2$$

R squared is R · R

$$\sqrt{81} = \sqrt{R^2}$$

$$\pm R$$

take the square root of both sides

$$9 = R$$

$$81 = R^2$$

$$81 \stackrel{\checkmark}{=} 9^2$$

Solve each equation.

66. $48 = g + 46$	67. $55 = 34 + j$	68. $a + 54 = 64$
69. $26 + q = 57$	70. $c + 24 = 95$	71. $99 + z = 126$
72. $87 = t + 74$	73. $52 = 41 + x$	74. $48 = 32 + h$

Solve each equation.

75. $74 - r = 28$	76. $2 = f - 21$	77. $70 - y = 31$
78. $21 = n - 72$	79. $d - 42 = 1$	80. $58 = 96 - u$
81. $38 = b - 46$	82. $5 - h = 3$	83. $9 = 26 - b$

Solve each equation.

84. $3d = 21$	85. $7v = 42$	86. $5 = t \div 6$
87. $2 = x \div 4$	88. $4 = 32 \div e$	89. $5z = 40$
90. $6 \div p = 3$	91. $81 = 9s$	92. $6 = 30 \div m$

Solve each equation.

93. $51 + n = 87$	94. $3 = 27 \div q$	95. $87 = 65 + u$
96. $w - 21 = 71$	97. $4 = a \div 4$	98. $30 = 88 - r$
99. $j + 31 = 76$	100. $f + 27 = 93$	101. $3y = 18$

Solve each equation.

66. 48 = g + 46 **g = 2**	67. 55 = 34 + j **j = 21**	68. a + 54 = 64 **a = 10**
69. 26 + q = 57 **q = 31**	70. c + 24 = 95 **c = 71**	71. 99 + z = 126 **z = 27**
72. 87 = t + 74 **t = 13**	73. 52 = 41 + x **x = 11**	74. 48 = 32 + h **h = 16**

Answer Key 0476900

Solve each equation.

75. 74 - r = 28 **r = 46**	76. 2 = f - 21 **f = 23**	77. 70 - y = 31 **y = 39**
78. 21 = n - 72 **n = 93**	79. d - 42 = 1 **d = 43**	80. 58 = 96 - u **u = 38**
81. 38 = b - 46 **b = 84**	82. 5 - h = 3 **h = 2**	83. 9 = 26 - b **b = 17**

Solve each equation.

84. 3d = 21 **d = 7**	85. 7v = 42 **v = 6**	86. 5 = t ÷ 6 **t = 30**
87. 2 = x ÷ 4 **x = 8**	88. 4 = 32 ÷ e **e = 8**	89. 5z = 40 **z = 8**
90. 6 ÷ p = 3 **p = 2**	91. 81 = 9s **s = 9**	92. 6 = 30 ÷ m **m = 5**

Solve each equation.

93. 51 + n = 87 **n = 36**	94. 3 = 27 ÷ q **q = 9**	95. 87 = 65 + u **u = 22**
96. w - 21 = 71 **w = 92**	97. 4 = a ÷ 4 **a = 16**	98. 30 = 88 - r **r = 58**
99. j + 31 = 76 **j = 45**	100. f + 27 = 93 **f = 66**	101. 3y = 18 **y = 6**