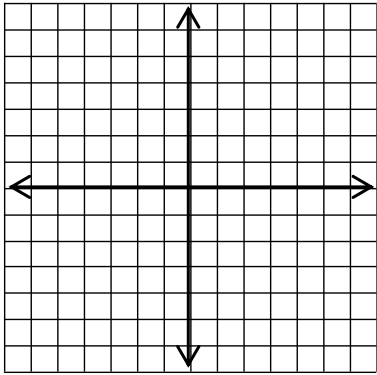


Only use a calculator if the problem states that you can.

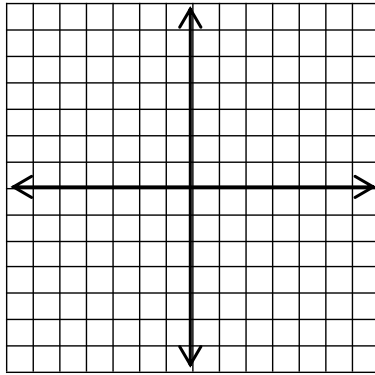
DAY 3

Graph each system of linear inequalities.

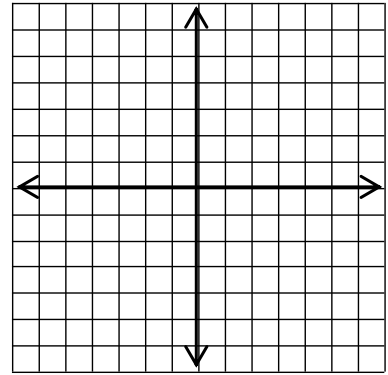
66.
$$\begin{cases} y \leq 3x + 6 \\ y > -\frac{1}{2}x + 1 \end{cases}$$



67.
$$\begin{cases} y \geq -\frac{3}{2}x - 1 \\ -4 + y < x \end{cases}$$



68.
$$\begin{cases} y \leq -2x + 4 \\ x > -1 \\ y > 2 \end{cases}$$



69. The table gives information about the depth of a diver and the temperature of the water. Use the table to answer the following questions. You may use a calculator.

Depth (below sea level) of a diver in meter (x)	Temperature of the water in degrees (y)
3	61.25
6	60.5
9	59.75
$\Delta x =$	$\Delta y =$

a. Find the slope.

b. Find the equation.

c. If the diver went 11 meters below sea level, what would the temperature of the water be?

Simplify each of the following. All answers must have positive exponents.

70. 4^{-2}

71. -3^{-4}

72. $\left(\frac{1}{3}\right)^{-2}$

73. $\left(\frac{4}{5}\right)^{-1}$

74. -5^2

75. $(8q^3p^9)(-2q^5p^8)$

76. $(-3c^5d^4)^3$

77. $(-ab^5)^2(2a^3b^4)^5$

78. $\left(\frac{h^4}{g^3h}\right)^2$

79. n^6n^{-2}

80. $\frac{rs^{-6}}{r^{-3}}$

81. $\left(\frac{x^3z^2}{x^5z}\right)^3$

82. $(w^2z^7)^0$

83. $\frac{3x^{-4}z^7m^2}{9x^{-2}z^{-3}m^2}$

Simplify each expression by adding, subtracting or multiplying.

84. $(a^2 + ab - 3b^2) + (b^2 + 4a^2 - ab)$

85. $(x - 4)(x + 1)$

86. $(5m - 3n)(4m - 2n)$

87. $(7z^2 + 4 - z) - (-5 + 3z^2)$

88. $-3jk^2(3jk + 2k^3)$

89. $-\frac{2}{3}n^2(-9n^2 + 3n + 6)$

90. $(8x - 2)(3x^2 + 2x - 1)$

91. $2x^2y^2(3xy + 2y^4 - 5x^3)$

92. $(3p - 2)^2$

93. $(x^2 - 1)(x^2 + 1)$

Factor the following polynomials by GCF.

94. $4x^3 - 12x^2 + 8x$

95. $-6x^2y^2 - 12xy$

Factor the following trinomials.

96. $3x^2 - 5x + 2$

97. $5x^2 - 16x + 3$

98. $3x^2 - x - 2$

99. $25x^2 - 64$

100. $x^2 - 4x + 4$