1. Fill in the blanks.

Solve by substitution. Enter the coordinates as decimals.

1) \( x + y = 4 \) \( \rightarrow \) \( x = 4 - y \) \( \rightarrow \) \( x = 4 - 11.5 = -7.5 \)
2) \( 5x + 3y = -3 \) \( \rightarrow \) \( 5(4 - y) + 3y = -3 \)
   \( x = -7.5 \) \( y = 11.5 \)
   \( 20 - 5y + 3y = -3 \)
   \( -2y = -23 \)
   \( y = 11.5 \)

2. Fill in the blanks.

Solve by elimination. Round your answers to one decimal place.

1) \( 0.75x + 0.225y = 0.535 \) \( \rightarrow \) \( -4(0.75x + 0.225y) = 0.535(-4) \)
   \( -3x - 0.9y = -2.14 \)
   \( 3x + 3y = 4 \)
   \( 2.1y = 1.86 \)
   \( y \approx 0.869 \)
   \( 3x + 3(0.869) \approx 4 \)
   \( 3x \approx 1.393 \)
   \( x \approx 0.464 \)
3. Fill in the blank.

Solve.

1) $4x + 7y = 3$  
2) $16x + 28y = 12$

Select the correct answer.

a. $\left(\frac{4}{7}, \frac{3}{7}\right)$

b. $\left(-\frac{4}{3}, -1\right)$

c. The system is dependent.

d. The system is inconsistent.

4. Fill in the blanks.

Solve. Enter the coordinates as decimals.

1) $0.2x + 0.5y = 0.15$  
2) $x - 5y = 1$

$x \approx 0.845$  
$y \approx -0.03$

$x = 1 + 5y$  
$x \approx 1 + 5(-0.03)$  
$x \approx 0.85$

$0.2(1 + 5y) + 0.5y = 0.15$  
$0.2 + y + 0.5y = 0.15$

$1.5y = 0.15 - 0.2$  
$1.5y = -0.05$

$y \approx -0.03$
5. Fill in the blanks.

300 people (adults and students) attended a theater performance. Student tickets were sold at $2.50 and adult tickets at $6.50. The ticket sales for the performance totaled $1,474.00. How many adult tickets were sold?

Complete the equations and the solution.
Let \( x \) represent the number of student tickets sold.
Let \( y \) represent the number of adult tickets sold.

1) \( x + y = 300 \quad \rightarrow \quad x = 300 - y \)

2) \( 2.5x + 6.5y = 1,474 \quad \rightarrow \quad 2.5(300 - y) + 6.5y = 1474 \)

The total number of adult tickets sold was \( 181 \).

\[
750 - 2.5y + 6.5y = 1474 \\
4y = 1474 - 750 \\
4y = 724 \\
y = 181
\]