

Solve the system of linear equations by substitution. Check your answer and state the type of system.

$$1) \begin{cases} y = 6x - 11 \\ -2x - 3y = -7 \end{cases}$$

$$2) \begin{cases} 2x - 3y = -1 \\ y = x - 1 \end{cases}$$

Type:

Check:

Type:

Check:

$$3) \begin{cases} y = -2 \\ 4x - 3y = 18 \end{cases}$$

$$4) \begin{cases} x = -3y + 5 \\ -4x + 5y = -3 \end{cases}$$

Type:

Check:

Type:

Check:

$$5) \begin{cases} -3x + y = 3 \\ -6x + 2y = 20 \end{cases}$$

Type:

Check:

$$6) \begin{cases} -7x - 2y = -13 \\ x - 2y = 11 \end{cases}$$

Type:

Check:

$$7) \begin{cases} -4x + y = 6 \\ -5x - y = 21 \end{cases}$$

Type:

Check:

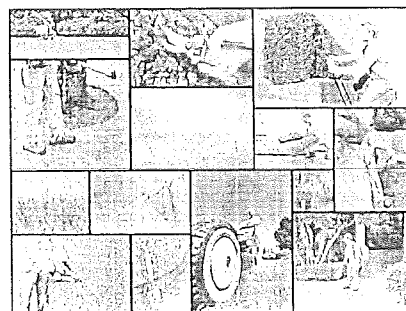
$$8) \begin{cases} 2y = -8x - 6 \\ -4x - y = 3 \end{cases}$$

Type:

Check:

9) Find the value of two numbers if their sum is 12 and their difference is 4.

10) The Smiths are deciding between two landscaping companies. Evergreen charges a \$79 startup fee and \$39 per month. Valley charges a \$25 startup fee and \$45 per month. In how many months will both landscaping services cost the same? What will the cost be?



a) Identify your variables.

b) Write the system of equations that can be used to represent this situation.

c) In how many months will both landscaping services cost the same? What will the cost be?

d) Which landscaping service will be less expensive in the long term? Explain.

