Names: _____

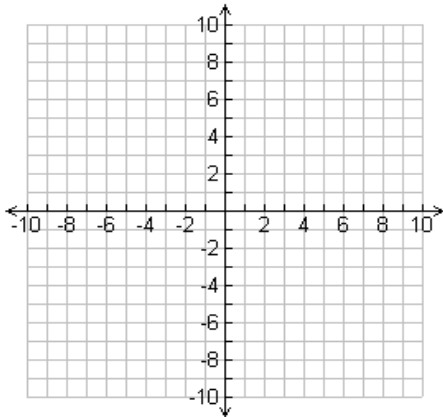## Sage & Scribe: Systems of Equations

The sage is the only one who may talk. The scribe is the only one who may write. Switch roles after each problem.
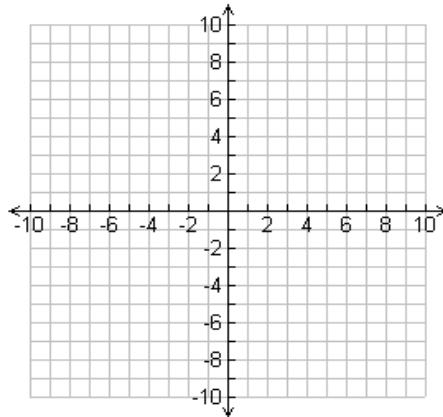
For 1-2, solve by graphing.

1) $\begin{cases} y = -\frac{1}{3}x + 5 \\ 2x + y = 10 \end{cases}$ Sage: _____
   Scribe: _____

2) $\begin{cases} y = -x - 3 \\ y = 3x + 9 \end{cases}$ Sage: _____
   Scribe: _____

For 3-4, solve by substitution.

3) $\begin{cases} y = -4x \\ 4x - 2y = 120 \end{cases}$ Sage: _____
   Scribe: _____

4) $\begin{cases} 3x + 6y = 15 \\ x = 8 - y \end{cases}$ Sage: _____
   Scribe: _____

5) Fluffy and Sparky each had some bones. Fluffy had five times as many bones as Sparky. Together, they had 90 bones. Write and solve a system of equations to find how many bones they each had.

Sage: _____
Scribe: _____

6) Jack and Jill ran up the hill. Jack's time was 12 seconds faster than Jill's. If you add their times together, you get 1 minute and 38 seconds. Write and solve a system of equations to find each of their times.

Sage: _____
Scribe: _____