Foundations of Algebra

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## Quiz Review

Name $\qquad$ ID: 1

Solve by graphing.

1) $\begin{aligned} & y=3 x+1 \\ & 2 y=6 x-8\end{aligned}$

2) $4 y=2 x-12$
$x-2 y=6$

3) $y=x-2$
$3 y=-x+6$


## Solve by elimination. Calculator allowed.

7) $-\frac{1}{3} x-\frac{4}{3} y=-2$
8) $\begin{aligned} 2 x+3 y & =10 \\ 5 x+3 y & =7\end{aligned}$
$\frac{1}{3} x-\frac{2}{3} y=4$
9) $x=4 y+11$
$5 x-7 y=-10$

Determine the type of lines and how many solutions.
10) $x=7 y$
$8 y=-3 x-29$
Type of lines: $\qquad$
\# of solutions: $\qquad$
12) $y=3 x-7$
$-y=-3 x+7$
Type of lines: $\qquad$
\# of solutions: $\qquad$
Answer the following.
14) What type of lines have the same slope and same y -intercept?
16) What type of lines have different slopes?
$\qquad$ -
18) How many solutions do parallel lines have? $\qquad$
11) $-3 y=-2 x+1$ $3 y=3 x+1$

Type of lines: $\qquad$
\# of solutions: $\qquad$
13) What are two methods to solve systems of equations?
15) What type of lines have the same slope and different $y$-intercept?
17) How many solutions do intersecting lines have? $\qquad$
19) How many solutions does the same line have? $\qquad$
$\qquad$ Period $\qquad$ Solve each system by elimination. (calculato $R$ allowed)

1) $3 x-4 y=-18$
$-3 x+4 y=18$
2) $-8 x+3 y=-26$
$-6 x-3 y=12$
3) $-3 x+7 y=-14$
$-3 x+7 y=-15$
4) $-3 x+8 y=-5$
$-3 x-2 y=-25$
5) $8 x+16 y=-24$
$-9 x-8 y=27$
6) $12 x+14 y=-22$
$6 x+7 y=-11$
7) $-6 x+18 y=9$
$4 x-12 y=-8$
8) $10 x+6 y=24$
$-8 x-4 y=-20$
9) $-9 x-13-y=0$
$7=-y-3 x$
10) $3 x+19=5 y$
$-13=-3 x+y$

## Solve each system by graphing.

11) $x+2 y=-8$
$7 x-2 y=-8$

12) $7 x+4 y=16$
$7 x+4 y=4$

13) $y=3 x-1$
$y=-4$

14) $y=\frac{4}{3} x+2$

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y=-\frac{2}{3} x-4
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