Name:
Period: $\qquad$
Directions: Graph each system of equations to find the intersection.

1. $3 x-4 y=-15$ and $y-9=\frac{3}{4}(x-7)$

2. $y=\frac{4}{3} x-5$ and $y+3=\frac{2}{3}(x+6)$

3. $2 x+y=-5$ and $y-4=-2(x-6)$

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Directions: Find the intersection of each pair of lines. Show all work.
4. $y=-3 x-6$
4. $4 x-y=-22$
5. $\begin{aligned} 4 x-5 y & =-51 \\ 2 x+3 y & =13\end{aligned}$
$3 x-5 y=-25$
6. $y=\frac{6}{10} x+5$
7. $6 x+5 y=68$
7. $x+5 y=28$
$y=\frac{2}{3} x-13$
8.
$y=-\frac{1}{6} x+7$
9. $10 x-7 y=19$
$13 x-16 y=4$
$12 x-9 y=24$
10. $y=\frac{4}{3} x-4$
11. $x-y=-19$
11. $x+y=5$

Directions: Solve each word problem by using the 5 steps. Show all work!!!
12. Roger is twice as old plus 4 years older as his brother Thomas. Together their ages add up to 19. How old are Roger and Thomas?
13. Henry made $\$ 1,044$ one week working 44 hours at 2 jobs. One job is cooking at a restaurant and the other job is teaching cooking classes at a local community college. He gets paid $\$ 25$ an hour cooking at the restaurant and $\$ 21$ an hour teaching the cooking classes. How many hours did he work at each job?
14. Peter is did some landscaping in his backyard. He bought 2 sizes of decorative stones, large and small, to use as a walk way. He bought 13 large and 45 small stones, paying $\$ 671$. However, he had to buy 6 more large stones and 15 more small stones, paying $\$ 252$. How much does each size of stone cost?
15. Rikki played 2 basketball games at the local gym on Wednesday evening. She scored twice as many points minus 2 in the $1^{\text {st }}$ game than she did in the $2^{\text {nd }}$ game. For the 2 games she scored 34 points. How many points did she score in each game?
16. Jordan and Emily went shopping for some new clothes. Jordan bought some 4 t -shirts and 2 pairs of jeans for $\$ 125$. At the same store, Emily bought 3 t -shirts and 3 pairs of jeans for $\$ 150$. How much does a pair of jeans and $t$-shirt cost at the store?
17. Taylor made 22 points on 8 baskets while playing a basketball game. Some were 2 -point baskets and the rest were 3-point baskets. How many of each did she score in the basketball game?
18. Monica worked a total of 48 hours one week earning $\$ 1,080$. She works as a receptionist at a local legal firm and as barista at a local coffee shop. Monica worked 12 more hours as a receptionist than as a barista. She gets paid $\$ 27$ an hour as a receptionist and $\$ 15$ an hour as a barista. How much did she make at each job?

Directions: Complete the parent function chart.

| PARENT FUNCTION: | CONSTANT | LINEAR | ABSOLUTE VALUE |
| :---: | :---: | :---: | :---: |
| FUNCTION EQUATION: |  |  |  |
| GRAPH: |  |  |  |
| DOMAIN IN SET NOTATION: |  |  |  |
| RANGE IN SET NOTATION: |  |  |  |

