

## HW #4 Adding Linear Expressions

Determine whether the algebraic expression is a linear expression. Explain.

1. 
$$(x^2+x+1)$$
  
No cannot  
have  $X^2$ 

2. 
$$-2x^{2}-8$$

Yes!

X is to the 1st panel

3. 
$$x-x^4$$
No, cannot have  $x^4$ 

Find the sum.

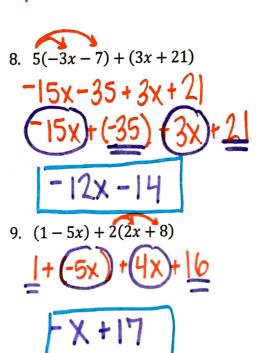
5. 
$$(7-x)+(3x+2)$$
 $(7-x)+(3x)$ 
 $(7-x)+(3x)$ 

6. 
$$(2x-9)+(-4x-5)$$
 $(2x)+(-9)+(-4x-5)$ 
 $(-4x)+(-5)$ 
 $(-2x)-(-4x)$ 

7. 
$$(2x-6)+4(x-3)$$

$$(2x)+(-6)+(4x)+(-12)$$

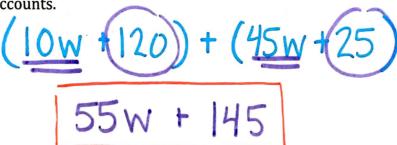
$$(0x-18)$$



10. 
$$\frac{1}{3}(9+6x) + \frac{1}{4}(12x-8)$$
  
 $\frac{3}{4}(2x) + \frac{3}{4}(2x-8)$ 

11. 
$$(4x+4)+(-2x-3)$$
  
 $(4x+4)+(-2x-3)$   
 $(-3)$   
 $(2x+1)$ 

12. You start a new job. After w weeks, you have (10w + 120) dollars in your savings account and (45w + 25) dollars in your checking account. Write an expression that represents the total in both accounts.



- 13. While catching fireflies, you and a friend decide to have competition. After m minutes, you have (3m + 13) fireflies and your friend has (4m + 6) fireflies.
  - a. Write an expression that represents the number of fireflies you and your friend catch together.

$$(3m + 13) + (4m + 6)$$
  
 $7m + 19$ 

b. The competition ends after 5 minutes. Who has more fireflies?

$$3m+13$$
  $4m+6$   
 $3(5)+13$   $4(5)+6$   
 $15+13$   $20+6$   
 $28$   $26$   
You have more  
fireflies