Warmup 11/ (XVIII) Created by Mr. Lischwe

1. **12 years ago, Lex was 1/3 the age he is now. How old is Lex now?**

Note: This is a challenging problem! Try to problem-solve. Here are some suggested strategies:

- **Set up an equation where "L" represents Lex's current or past age and solve it**
- **Make a picture or diagram**
- **Guess & check (intelligently)**

Quick announcement: ALEKS Knowledge Checks

PLAN: Next 2 weeks

TODAY: More Story Problems

TUESDAY: Scavenger Hunt Activity

WEDNESDAY: “Special” Equations

THURSDAY: Review in Groups

FRIDAY: Extra Practice/Challenge

MONDAY: Equations TEST!

TUESDAY: Last day before Thanksgiving Break

Equations Quizzes

- Deadline will be 1 week after Thanksgiving break
- No tasks; must retake the entire thing

Pass out Scavenger Hunt Template

- **First, we will do a bunch of problems ON THE BACK of this handout!**

Story Problem (on back of handout)

- **Billy started with $7 and made $3 per week. Bobby started with $2 and made $4 per week. How many weeks will it take for them to have the same amount of money? How much money will they both have?**

1) Define a variable.
2) Write an equation representing the situation.
3) Solve the equation.
4) Describe the meaning of your solution.

1) w = # of weeks
2) 7 + 3w = 2 + 4w
3) w = 5
4) After 5 weeks, they will have the same amount of money.
They will each have $22.

Story Problem (on back of handout)

- Anne, Ben, and Nate are doing push-ups. Anne does some, but Ben does 1 more than Anne. Nate does three times as much as Anne. If they do 61 pushups total, how many pushups did each person do?

a) Define a variable.

b) Set up an equation to describe this situation. Use your equation to solve the problem.

x = # of pushups Anne does

Anne = x

Ben = x + 1

Nate = 3x

(x) + (x + 1) + (3x) = 61

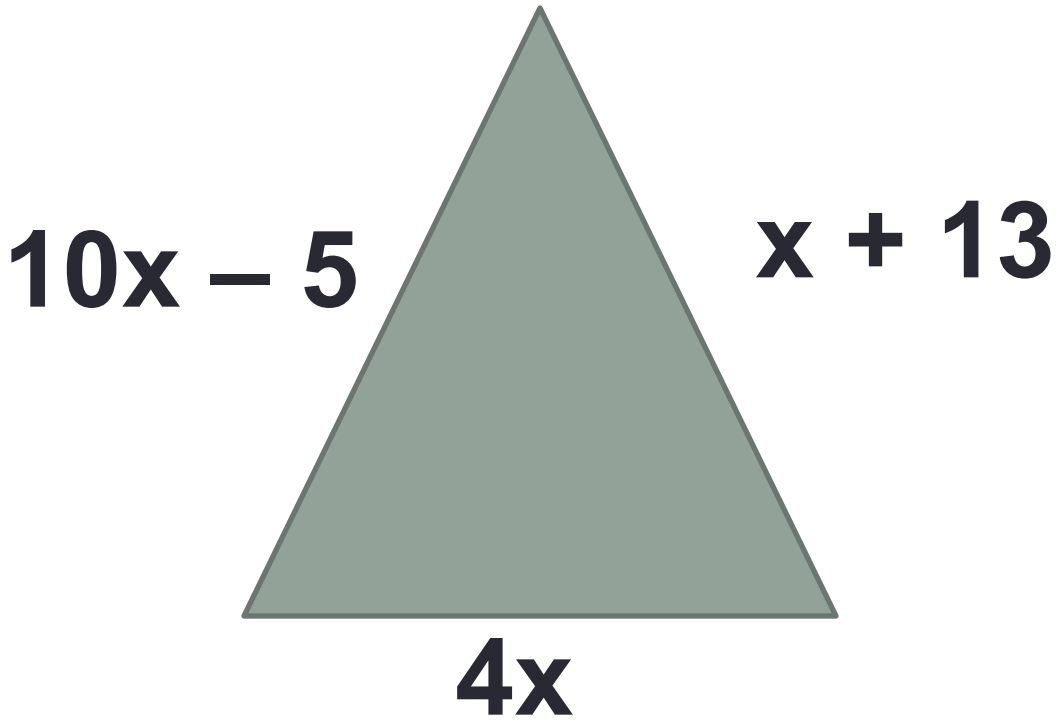
5x + 1 = 61

x = 12

Anne = 12, Ben = 13, Nate = 36

Check: 12 + 13 + 36 = 61

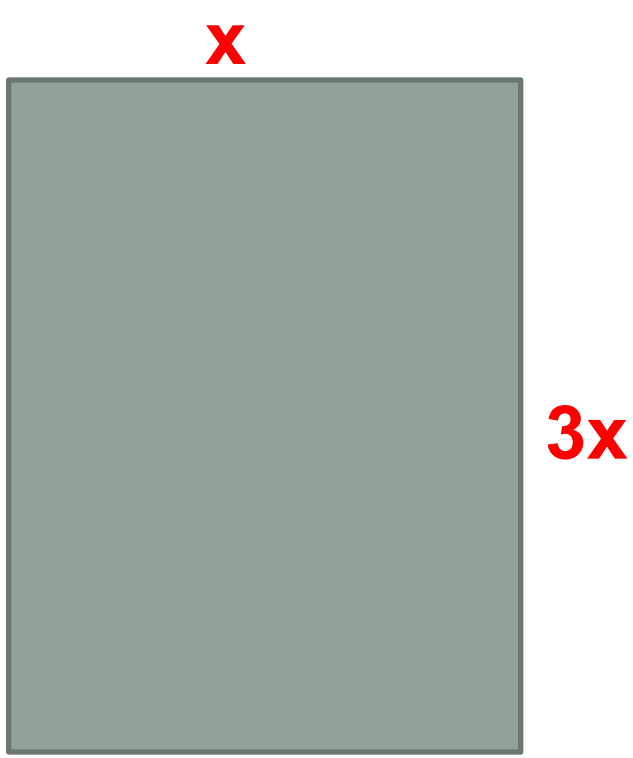
1. If the perimeter of the triangle is **38**, find the value of x.
2. Plug your solution back in to check that the perimeter is really 38.
3. Is this triangle equilateral, isosceles, or scalene?



x = 2

Geometry Connection

- If the perimeter of the rectangle is 48, find the length and width.



$$x + 3x + x + 3x = 48$$

or

$$2(x) + 2(3x) = 48$$

$$8x = 48$$

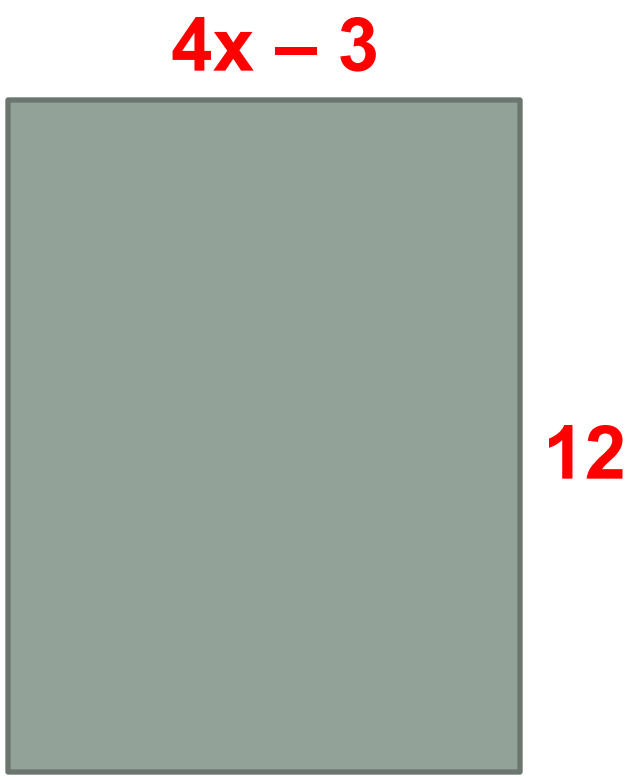
$$x = 6$$

Width = 6, Length = 18

Check: $6 + 18 + 6 + 18 = 48$

Geometry Connection

- If the area of the rectangle is **60, find the value of x. Check your answer.**



12(4x – 3) = 60

48x – 36 = 60

48x = 96

x = 2

Or divide both sides by 12 and get:

4x – 3 = 5

Then solve; x = 2

Lilly's Age

- In 16 years, Lilly will be 5 times as old as she is now. How old is Lilly now?

L = Lilly's age
L + 16 = Lilly's age in 16 years
(Lilly in 16 years) = 5(Lilly right now)
L + 16 = 5L
L = 4
Lilly is 4.