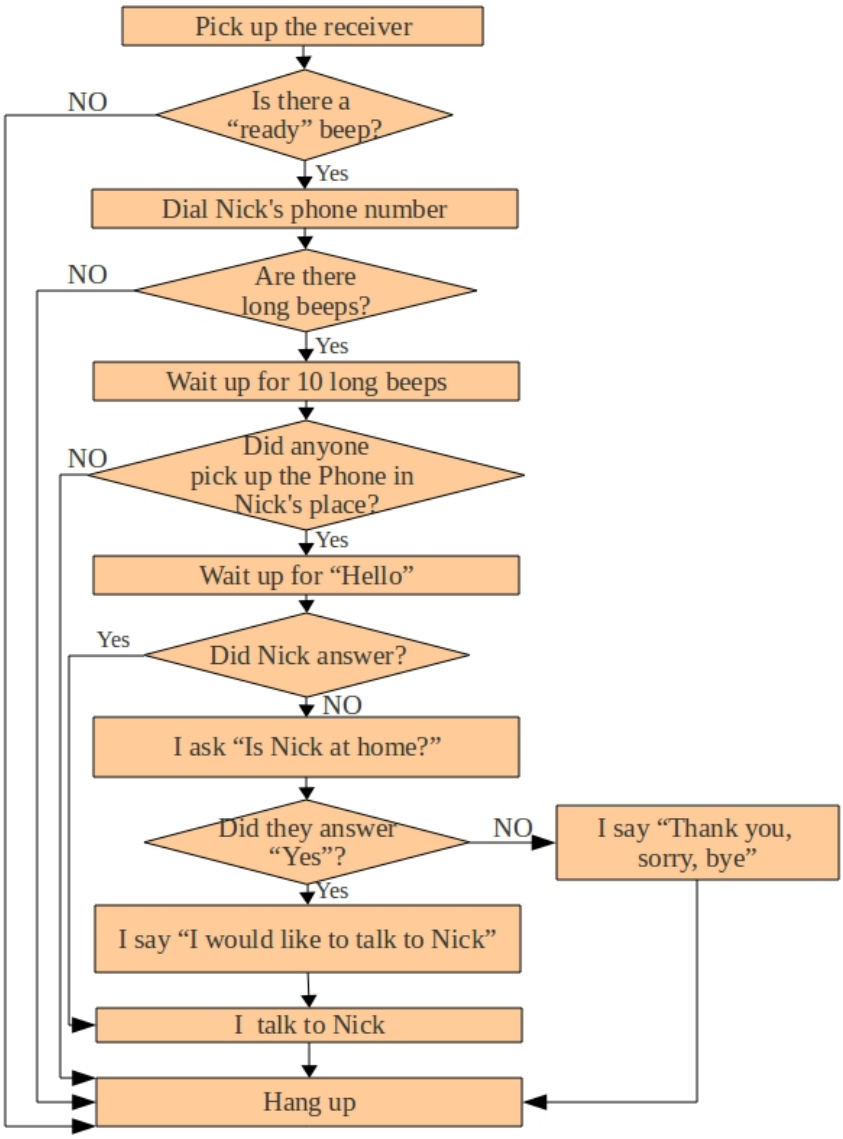
Homework 16

1. Explain step by step how do you cross the road (create a **branching algorithm**). Be prepared to explain your algorithm to the class:

a) Roads with a signalized crossing (signs “Walk” and “Don’t walk”)

b) Roads with marked crossing but without signals

2. Alex wants to call Nick on the phone. Look at the sequence of operations in the program he wrote and check whether it is correct or not.



3.

Calculate:

20 x 30 =	15 x 100 =	200 x 2 =
50 x 100 =	25 x 10 =	40 x 10 =
250 x 100 =	10 x 32 =	10 x 470 =

4. Write a correct expression and solve each problem. Write the full answer to the problem.

a). One gift basket contains 5 pieces of fruit. How many pieces of fruit would be in 4 baskets?

_____

Answer:_____

b). There are 6 pencils per box. How many pencils would be in 5 boxes?

_____

Answer:_____

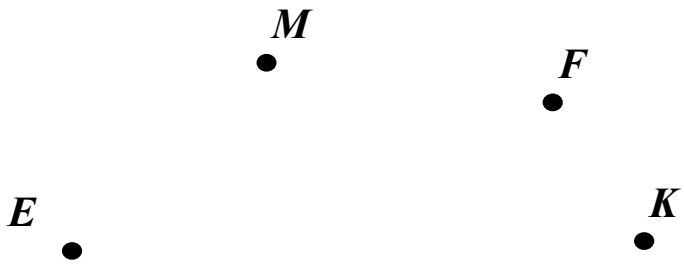
c). One pumpkin weighs as much as 2 watermelons. How many watermelons would balance 6 pumpkins?

_____

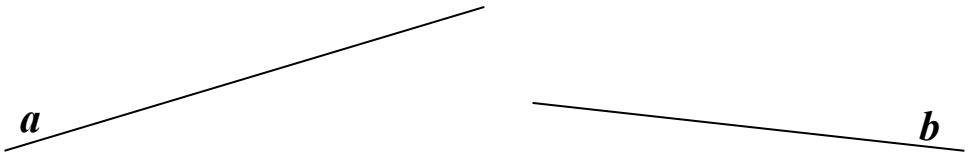
Answer:_____

5.

a) Use a ruler to draw the straight lines ***EF*** and ***MK***. Label their intersection with point ***O***.



b) Use a ruler to find the intersection of the lines ***a*** and ***b.*** Label it with a letter ***T***.



How many points of intersection can two lines have?

Can two different lines have two common points?

6.

Solve each equation, check your answers.

348 – x = 265 x + 738 = 856 x – 524 = 97

7. Solve the problems:

a) There are four cartons of eggs and each carton has 6 eggs. Two out of all of the eggs are bad. How many good eggs are there altogether?

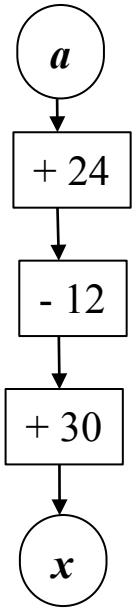
____ x ____ – ____ = ____

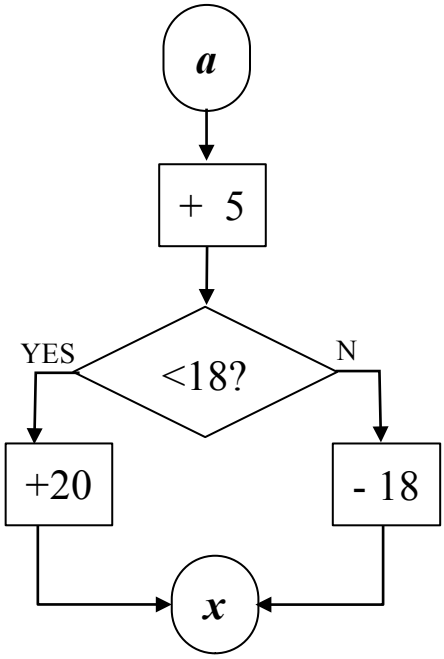
b) The family ordered 5 fruit baskets. Each basket contains 4 apples. They also had two apples in the fridge. How many apples do they have after receiving the baskets?

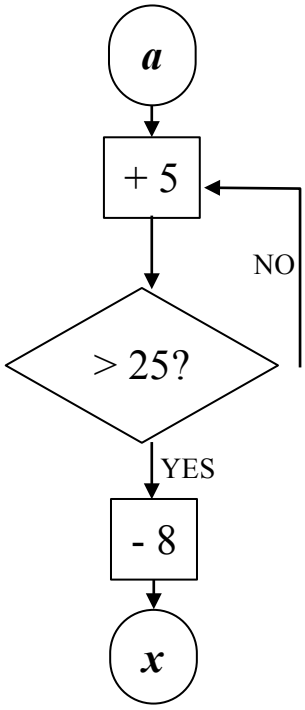
____ x ____ + ____ = ____

8. Which of those algorithms are ***linear, or branching, or cyclic***?

Find the value of x for every a by following each algorithm.







a	5	7	35
x			

a	5	7	35
x			

a	5	7	35
x			

9.

Remove parenthesis, simplify expression and calculate where possible:

a) 295+ (32 – 95) =_____

b) (123– 75) - (23– 25) = _____

c) 125 - (125 – 93) – 23 = _____

d) (999 + 532) – 32– (499 +498) = _____

e) (a + b) – (h + c) =_____

f) d - (b – c + d) =_____

g) c + (b – c) + d =_____

10.

Work on memorizing the multiplication table!

*	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100