Lesson 22

Dividing into groups of equal size.

1 Simplify and solve for X.

X – (5 + 3) = 12 _____

X – (6 + 2) = 4 _____

X + 2 – (3 + 6) = 14 _____

X – (3 - 2 + 6) = 10 _____

X + (8 – 4) + 12 – 6 = 20 _____

X + (8 - 4 + 12) – 2 = 16 _____

2 Compare if possible, using >, <, or = signs (c, x, p, $q \neq 0$).

$2 \times c + c \square c \times 3$ $\quad$ $3 \times c \square c \times 4$ $\quad$ $c \times 6 \square c \times 3 + c \times 2$

$x \times 5 - x \times 2 \square x \times 3$ $\quad$ $p + p \times 2 \square p \times 4$ $\quad$ $q \times 4 \square q + q + q$

3 Solve the following word problems:

A. Barn the dog eats 2 sausages a day. How many sausages will he eat in 7 days?

_____

B. Barn the dog eats 2 sausages a day. How many sausages will he eat in **x** days?

_____

C. Barn the dog eats ***m*** sausages a day. How many sausages will he eat in **x** days?

_____

D. Barn the dog eats 2 sausages a day. How long will it take him to eat 12 sausages?

_____

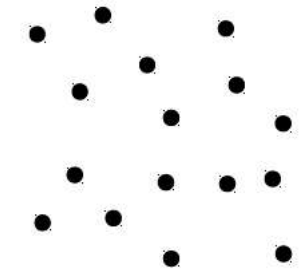
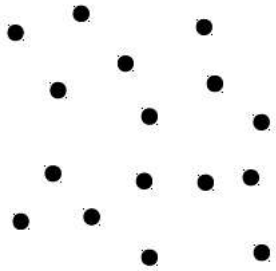
E. Barn the dog eats 2 sausages a day. How long will it take him to eat **x** sausages?

_____

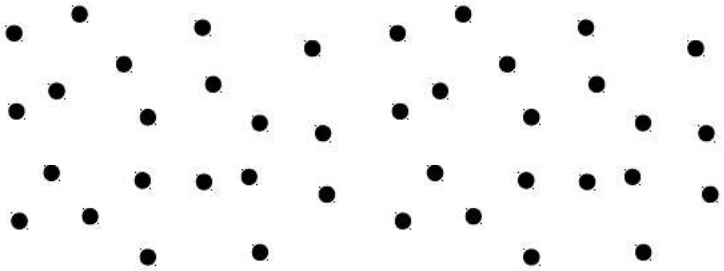
F. Barn the dog eats ***w*** sausages a day. How long will it take him to eat **x** sausages?

Dividing into groups of equal size.

4 Compare the two word problems and their solution:

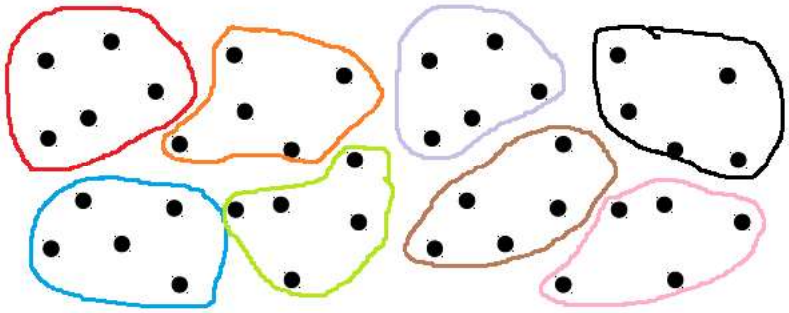
Problem I. Foxy Tail wants to treat his friends with apples. He has 16 apples and intends to give 2 apples to each of his friends. How many friends can he treat with apples?	**Problem 2.** Foxy Tail wants to treat his friends with apples. He has 16 apples and intends to give the same number of apples to each of his two friends. How many apples will each friend get?
	

5 Little Joe has decided to share his toy cars among his 5 friends. What is the easiest way to share these cars evenly?



What is the best way to divide these cars into 5 equal groups?

It is easy to split the job in two parts: first, divide the toy cars into groups of 5; second, give each friend a car from each group.



6 There is a large bag of candies. Pop Eye wants to share the bag among Little Joe, Foxy Tail, Jake the Mouse, and himself. Is it possible to divide these candies evenly among the brothers without counting the total number of candies in the bag? Is it always possible to divide all candies evenly?

7 Draw a rectangle and solve problems.

A. Rectangle ***PQRS*** has sides 3 cm and 4 cm. Find the area of the rectangle ***PQRS***.

_____

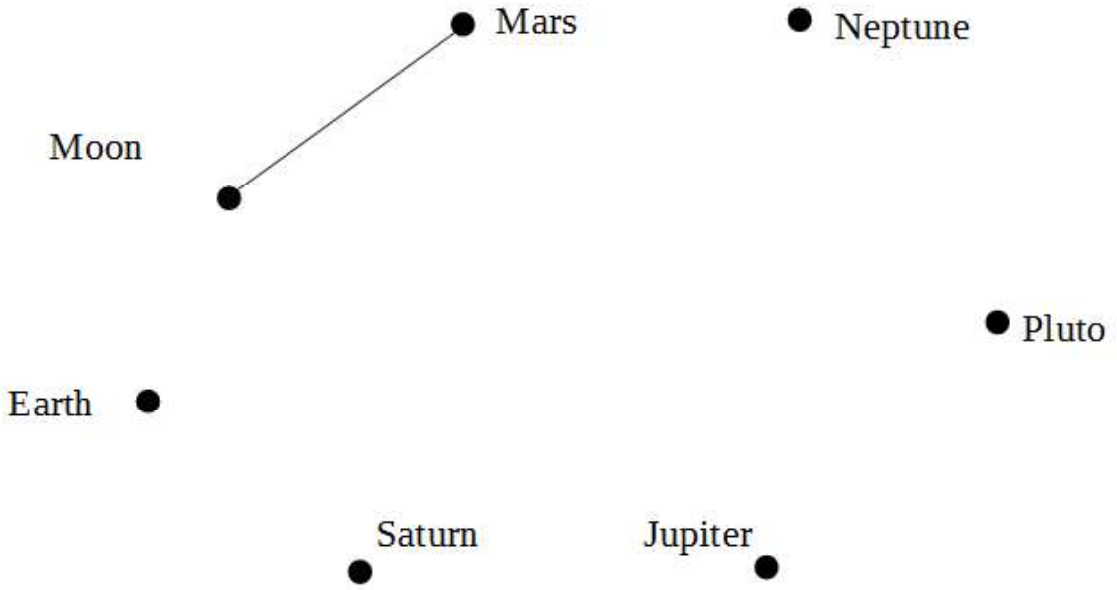
B. One side of rectangle ***TXYZ*** is 5 cm. Its area is 30 cm^2. What is the other side of the rectangle?

_____

8 Here is the list of the commercial interplanetary flight services:

Mars – Moon, Saturn – Earth, Neptune – Jupiter, Moon – Earth, Pluto – Jupiter, Saturn – Mars, Neptune – Pluto, Jupiter – Mars. Each service is available in both directions.

Is it possible to travel from Pluto to Moon?

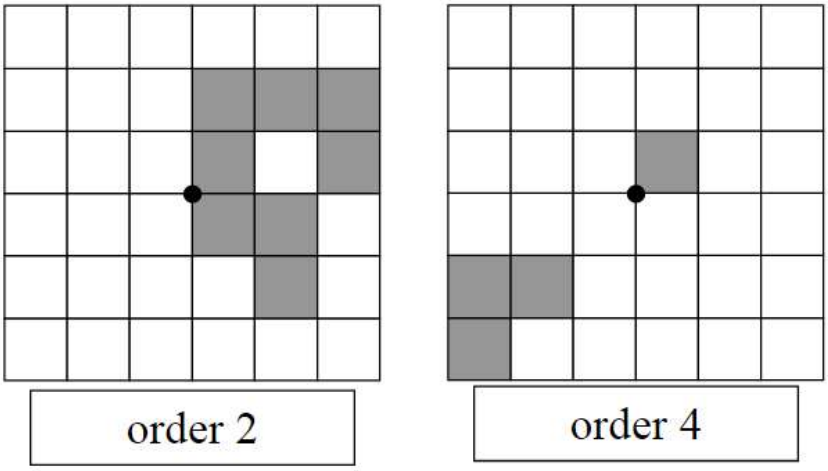


9 There were 3 soccer players and 3 hockey players at a meeting. The meeting had only 5 participants. How could that be?

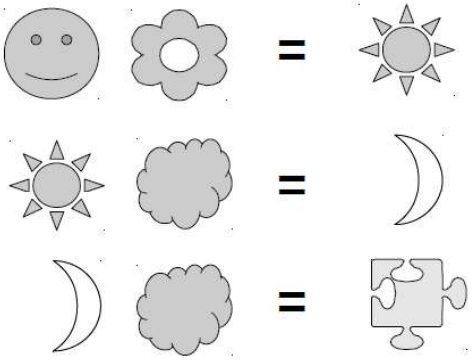
_____

10 10 pine trees are growing along a straight road. The distances between neighboring trees are 10 m. How far is the first pine from the last one? Draw a picture.

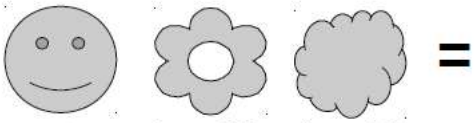
11 Finish the drawing according with the order of rotation symmetry.



12 If you know that:



Then:

1. 

2.