_____

Calculate using the most optimal way:

a) 13 + 16 + 19 + 22 + 25 + 28 + 31 + 34 + 37 =_____

=_____

b) Calculate. Look on the equations and decide where you need to remove parentheses and where you don't:

14 – (4 – 1) = _____   208 – (100 + 8) =_____

444 – (44 + 400) =_____   444 – (44 + 400) =_____

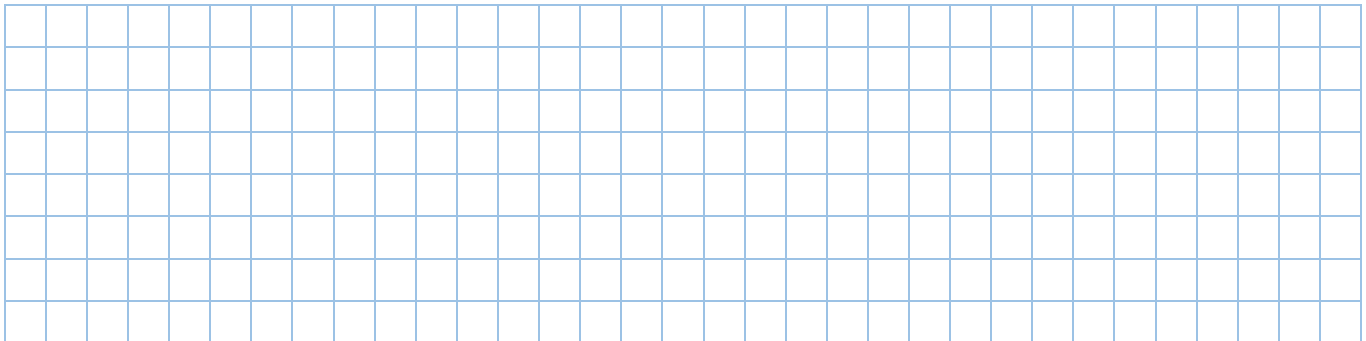14 – (4 – 1) =_____   208 – (100 + 8) = _____

c) Solve for x and check your answer:

$x + 42 = 418$ $271 – x = 35$ $x – 26 = 345$

d) Calculate:

   3 dm 7 cm + 4 dm 5 cm = _____

   26 cm + 3 dm 8 cm = _____

   7 dm 2 cm – 56 cm = _____

   6 dm 8 cm – 9 cm = _____

Report the time you spent: _____ minutes

_____

1

Rewrite each problem using multiplication instead of addition (where possible!):

For example: 2 + 2 + 2 + 2 = 2 × 4

12 + 12 + 12 + 12 =_____   28 + 82 =_____

24 + 24 + 24 =   _____   7 + 7 + 7 + 7 + 7 =_____

13 + 27 + 27 =_____   9 + 9 + 9 =_____

2

Rewrite each problem using addition instead of multiplication. The first one is done for you.

5 × 3 = 5 + 5 + 5 $a × 4 =$ _____ $b × 2 =$ _____

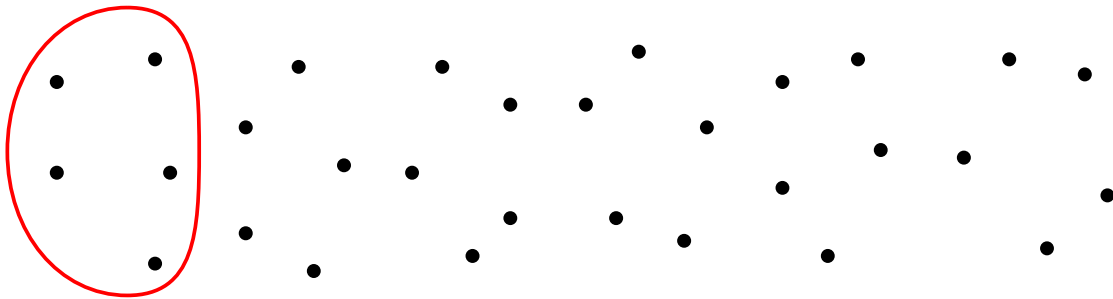*2 × 2 =* _____ $n × 4 =$_____ $p × 3 =$ _____
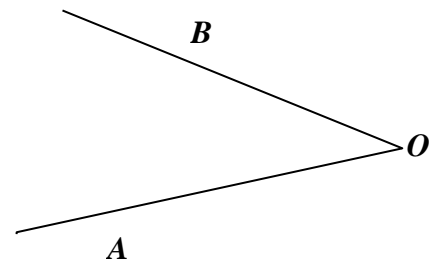
3

Count the points by grouping them into sets of five: 5 × __ = ___
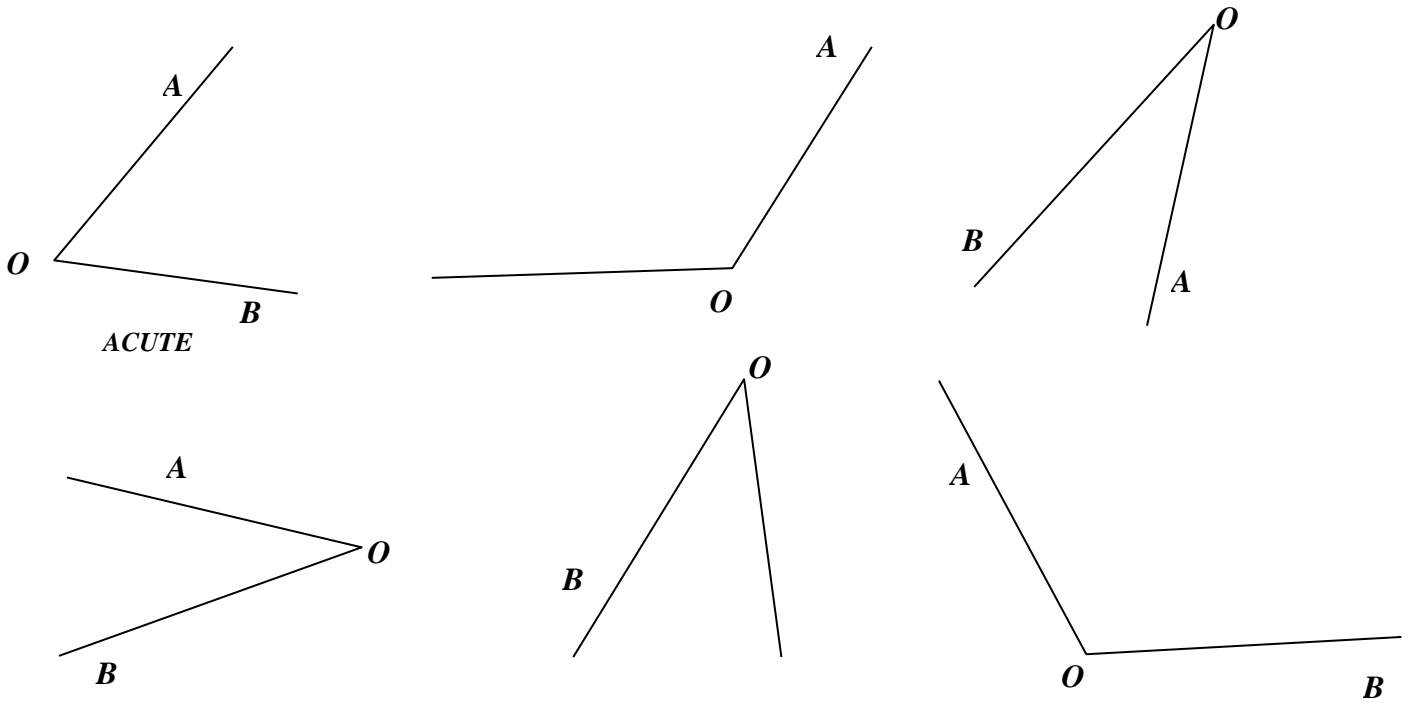Count the points by grouping them in the sets of 6: 6 × __ = ___

4

a) Use a ruler to plot ray OK so that ray OB would be inside the angle $∠AOK$ for each angle below:

ACUTE

Use the right angle template. Label the angles as acute, right or obtuse.

Multiplication. Algorithms.
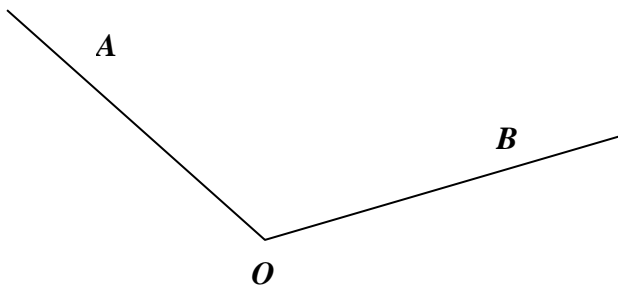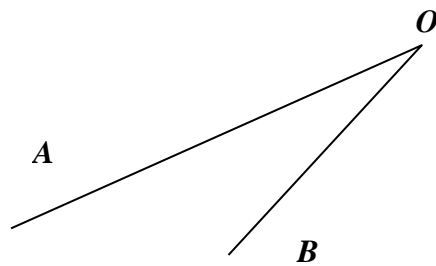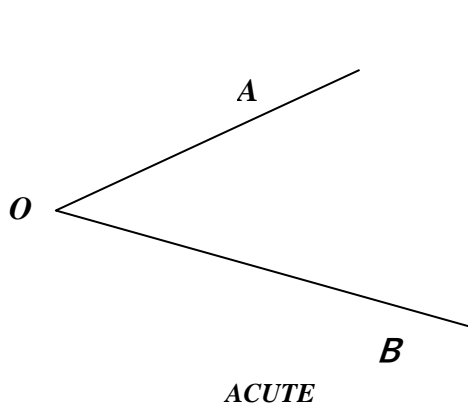
b) Use a ruler to plot a ray **OK** so that a ray **OB** would be outside the angle ∠**AOK** for each angle below:

A

O

B

ACUTE

A

O

O

B

A

A

O

B

A

O

B

Use right angle template. Label the angles as acute, right or obtuse.

Perform the operations. What do you notice?

5

+2		+20		+200	
284		284		284	
285		285		285	
286		286		286	
287		287		287	

-2		-20		-200	
284		284		284	
285		285		285	
286		286		286	
287		287		287	

6 Color a circle, a triangle and a square in a way that circle would appear on the top of both triangle and square.

7 Write a correct expression for each case. Calculate the value of both expressions.

$$428 \quad - \quad 37$$

−63

$$37 \quad + \quad 63$$

$$428 \quad -$$

8 Write down the following expressions:

The sum of m and n _____

The difference between 34 and x_____

The difference between 200 and 48_____

The sum of x and 18_____

9

Write expressions corresponding to the word problems:

a) There were p coins in the first chest and r coins in the second. How many coins are in both chests?

_____

b) There are q coins in the first chest and x coins in the second. How many more coins are in the second chest than in the first? _____

c) There are n coins in the first chest. In the second chest, there are k coins more than in the first. How many coins are in both chests? _____

10

Tom was supposed to add together three numbers: 41, 273, and 136. He wrote them in column and added as shown. What did he do wrong? Help him add the numbers correctly.

```
   4 1
+  2 7 3
   1 3 6
_____
   8 1 9
```

11

a) Write an algorithm for the column addition of two 3-digit numbers. (Remember - to write an algorithm means to create a list of step by step operations one should do to get the correct result. Imagine you teach this to your younger friend). What kind of algorithm is that? (linear or cycling?)

Step 1: Write down the first number
Step 2: _____
_____
_____
_____
_____
_____
_____
_____
_____

b) Draw a scheme for loading a dishwasher algorithm - you want to put all dishes from your sink to a dishwasher plate by plate. You begin with opening a dishwasher and then put the 1st plate in. Assume that there are 4 plates in the sink. Check if you have more plates in the sink. What do you do if there are no more plates in the sink? What do you do if there are plates in the sink?