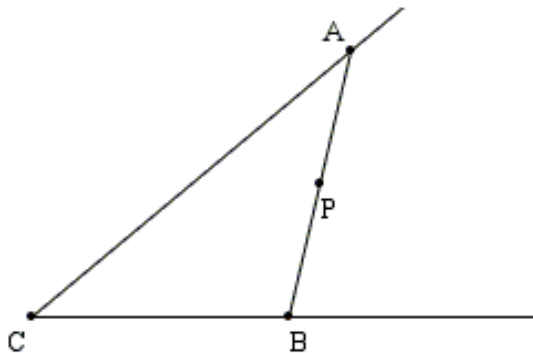


1

Interior and Exterior of an Angle.

Does point P belong to an  $\angle ACB$ ? \_\_\_\_\_ Does a segment  $\overline{AB}$  belong to an  $\angle ACB$ ? \_\_\_\_\_

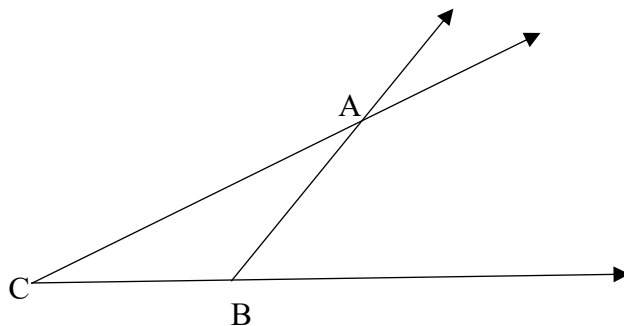


2

Do all points of a ray  $\overrightarrow{BA}$  belong to the  $\angle ACB$ ? \_\_\_\_\_

a) Take a blue pencil and follow the part of the ray  $\overrightarrow{BA}$  which is inside the angle  $\angle ACB$

b) Take a green pencil and follow the part of the ray  $\overrightarrow{BA}$  which is outside the angle  $\angle ACB$



3

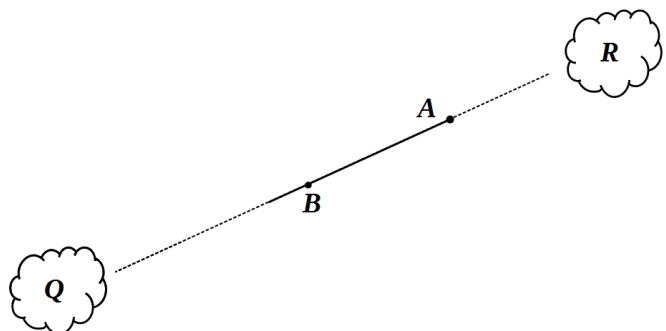
Compare the rays  $\overrightarrow{AB}$  and  $\overrightarrow{BA}$ :

Does ray  $\overrightarrow{AB}$  pierce cloud **R**? \_\_\_\_\_

Does ray  $\overrightarrow{AB}$  pierce cloud **Q**? \_\_\_\_\_

Does ray  $\overrightarrow{BA}$  pierce cloud **R**? \_\_\_\_\_

Does ray  $\overrightarrow{BA}$  pierce cloud **Q**? \_\_\_\_\_



## HW 6

## Angles. Variables. Equation.

4

Using a ruler, draw angles  $\angle ABC$  and  $\angle FDE$

Find the area which belong to both angles and shade it with a pencil.

$B \cdot$

$C \cdot$

$\cdot D$

$A$

$\cdot$

$\cdot E$

$\cdot F$

5

Express in meters, decimeters, and centimeters, using an example below.

$$485 \text{ cm} = 4\text{m} + 8\text{dm} + 5\text{cm}$$

$$56 \text{ dm} = \underline{\hspace{2cm}}$$

$$807 \text{ cm} = \underline{\hspace{2cm}}$$

$$350 \text{ cm} = \underline{\hspace{2cm}}$$

6

Evaluate an expression  $(11 + x)$ :

$$\text{If } x = 11: \underline{\hspace{2cm}}$$

$$\text{If } x = 20: \underline{\hspace{2cm}}$$

$$\text{If } x = 550: \underline{\hspace{2cm}}$$

7

Evaluate the expressions below for  $x = a$ , and  $y = 6$ .

$$x + y = \underline{\hspace{2cm}}$$

$$6 - y = \underline{\hspace{2cm}}$$

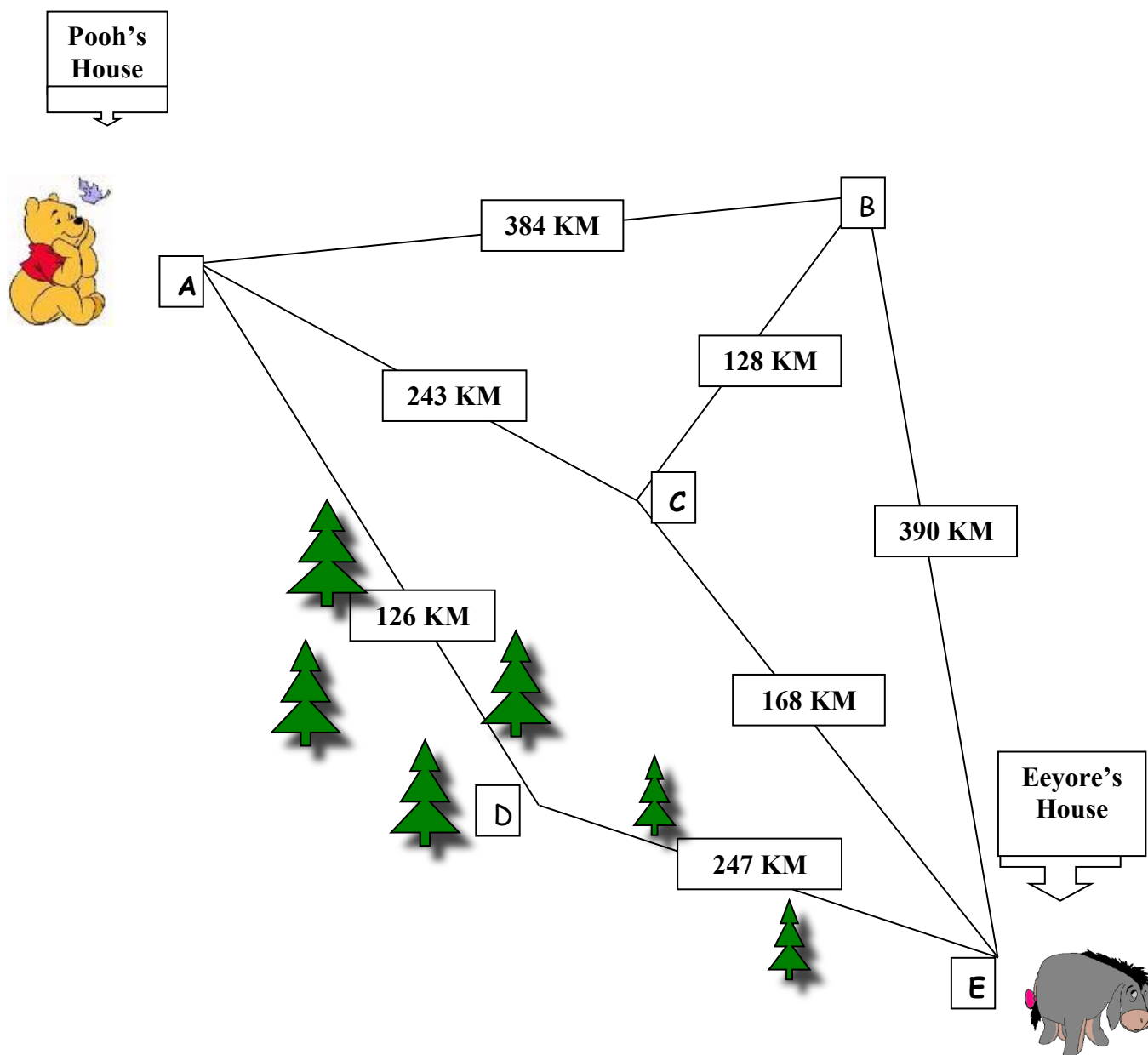
$$y - x = \underline{\hspace{2cm}}$$

8

One penny out of three is fake. It is lighter than the others. How can you find the fake coin by using a balance scale like the one shown in the picture? You can only weigh once!



Travelling distances.



- What is the distance from the point D to the point E? \_\_\_\_\_
- If Eeyore goes to Pooh's house through the forest, what is the total distance he travels? \_\_\_\_\_
- What is the distance from the point B to the point E? \_\_\_\_\_
- What is the total distance from point A to the point E via B? \_\_\_\_\_
- What is the total distance from the point A to the point E via C? \_\_\_\_\_
- If Pooh goes to Eeyore's house, which is the shortest route? \_\_\_\_\_

Calculate writing each problem in the columns (Don't forget to write ones under ones, etc.)

c)  $791 + 191 + 555 =$

[illegible]

In the mazes below, begin at the shaded number. Find the skip counting pattern to escape. You can only move up, down, left or right to the next number. Use any color pencil to show your route (practice with a regular graphite pencil with an eraser first).

|    |    |    |    |    |
|----|----|----|----|----|
| 24 | 20 | 25 | 5  | 18 |
| 23 | 16 | 9  | 2  | 10 |
| 42 | 38 | 11 | 6  | 26 |
| 52 | 34 | 16 | 10 | 14 |
| 15 | 30 | 26 | 22 | 18 |

|    |    |    |    |    |
|----|----|----|----|----|
| 10 | 12 | 14 | 15 | 18 |
| 8  | 6  | 9  | 12 | 21 |
| 4  | 7  | 14 | 25 | 24 |
| 2  | 8  | 17 | 30 | 27 |
| 12 | 9  | 15 | 33 | 32 |

a) Olivia begins at 10 and skip counts by 10. Isabella begins at 6 and skip counts by 6. What is the smallest number Olivia and Isabella will both say?

6, , , , , , , , , ,

b) Alan begins at 4 and skip counts by 7. Veronica begins at 4 and skip counts by 6. What is the smallest number after 4 they will both say?

4, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,

a) Edmund wrote that  $9 + 9 = 18$ . Then he wrote that  $9 + 9 + n = 18 - n$ . Are both of his equations balanced? If not, write down balanced equations.

b) Daniel wrote that  $a + a = 2a$ . Then he wrote  $a + a + b = a + a - b$ . Are both of his equations balanced? If not, write down balanced equations.

14

Simplify the following expressions:

$$35 + a + 45 - 80 + 4a = \underline{\hspace{2cm}}$$

$$125 + x - 25 - x = \underline{\hspace{2cm}}$$

$$y + 2y - 3y + 10y - y - y = \underline{\hspace{2cm}}$$

15

Sophie collected information about students who loves to read books and who loves to play computer games in her class. She filled in the table below but missed out one number.

|                                    | <i>Likes to play computer games</i> | <i>Does not like to play computer games</i> |
|------------------------------------|-------------------------------------|---------------------------------------------|
| <i>Likes to read books</i>         | 15                                  | 8                                           |
| <i>Does not like to read books</i> |                                     | 3                                           |

1. Explain how to find the missing number if there are 40 children in Sofia's class.
2. What does the missing number represent?  

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3. How many children like to do at least one activity?
4. Do more children like to play computer games then to read?
5. Could it be true that some of the children do not have any pets (cat or dog)?

16

Using your ruler draw:

- a) A **line segment and a ray**, which intersect at point K.
- b) A **line segment and a ray**, which do NOT intersect and are not parallel.
- c) A **line segment and a ray**, which are parallel.