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DiToM
Diagnostic Tool in Mathematics

Mathematics
Screening test 6+

Name: _____

STOP!
Only turn the page and start,
when the test administrator says so!
Please complete the following tasks without a calculator!
Use the empty spaces for your calculations!

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Part I

Task 1.1

Look at the numbers.
Find the missing numbers.
Write the numbers.

a) $3 \cdot \_\_\_ = 126$

b) $172 = 4 \cdot \_\_\_$

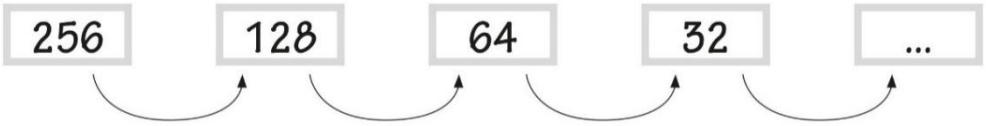
c) $54 : \_\_\_ = 6$

d) $\_\_\_ : 3 = 27$

____ / 4

Task 1.2

Look at the numbers.
See how they change.
What is the rule to continue the sequence?
Put a cross (X) on the correct rule.



☐ Subtract 32
☐ Subtract 128
☐ Divide by 4
☐ Divide by 2

____ / 1

Task 1.3

Do the calculation.

$14 + 2 \cdot 3 =$ _____

____ / 1

____ / 6

Task 1.4

Tom follows the instructions:

The number 4 *is added to* 5.
The result is multiplied by 8.

Look at Tom's result.

Which calculation can Tom use?
Put a cross (X) on the box in front of it.

☐ $5 + 4 \cdot 8$

☐ $(5 + 4) \cdot 8$

☐ $5 + (4 \cdot 8)$

☐ $5 \cdot 8 + 4$

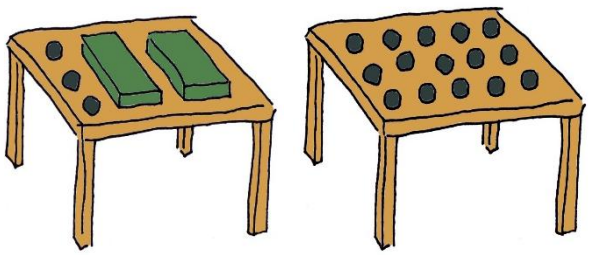
____ / 1

Task 1.5

Look at the picture.

In the picture two tables are shown.

There are marbles and boxes on two tables.



Each box has the same number of marbles.

Table 1 and table 2 have the same number of marbles.

How many marbles are in one box?

Answer:

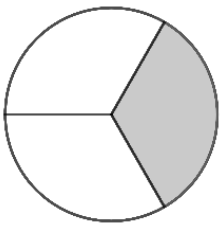
____ / 1

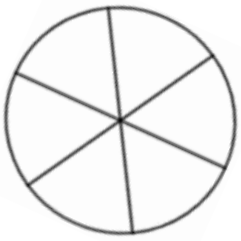
____ / 2

Part II

Task 2.1

Look at the picture below.
There are two cicles.
The first one has a coloured part.
Shade the second circle the same as the first.
Write the equal fractions.





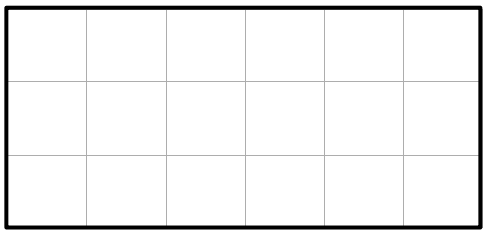
$\frac{\square}{\square} = \frac{\square}{\square}$

____ / 1

Task 2.2

Look at the rectangle.

Colour $\frac{2}{6}$ parts.
Do not colour the other parts.



____ / 1

Task 2.3

2 kg of potatoes cost 5 €.
6 kg is more potatoes.

How much do 6 kg cost?
Answer: _____ €

____ / 1

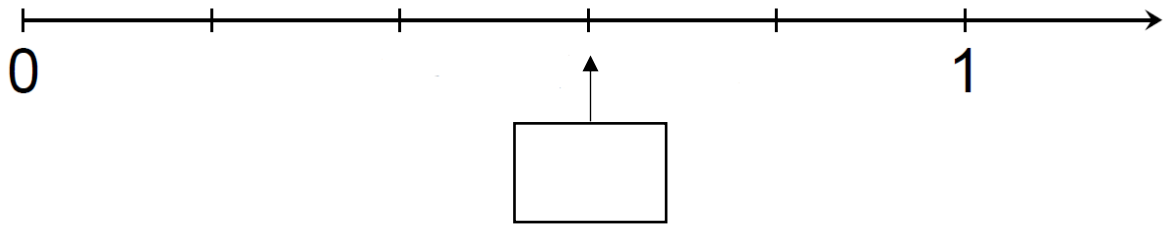
____ / 3

Part III

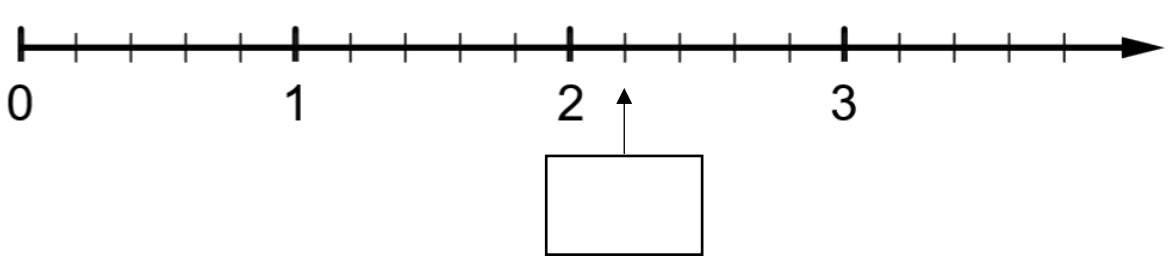
Task 3.1

Look at the point on the number line.
Find the number.
Write the number in the box.

a)



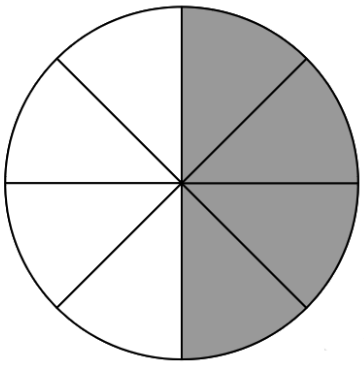
b)



____ / 2

Task 3.2

Look at the circle.
See the coloured part.
Put a cross (X) on the orrect part (fraction).



☐ $\frac{1}{2}$ ☐ $\frac{1}{8}$ ☐ $\frac{8}{4}$ ☐ $\frac{1}{4}$

____ / 1

____ / 3

Task 3.3

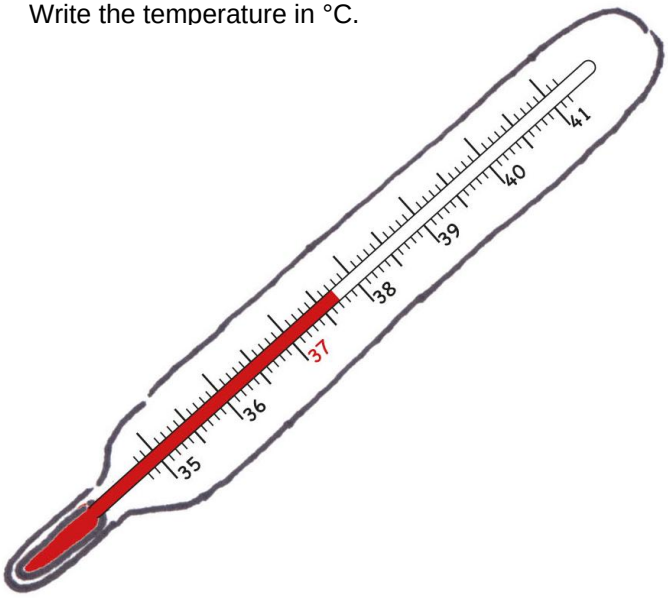
Look at the numbers.
Put a cross (X) on all numbers that are bigger than $\frac{10}{3}$

☐ 2 ☐ 3 ☐ 4 ☐ 5

____ / 1

Task 3.4

Look at the thermometer.
Read the number.
Write the temperature in °C.



Answer: _____°C

____ / 1

Task 3.5

Look at all the numbers.
Find the biggest number.
Put a cross (X) on the box in front of it

☐ 3,33 ☐ 3,303 ☐ 3,03 ☐ 3,3

____ / 1

Task 3.6

Look at the number pattern.
Find the missing number.
Write the number.

a) $1{,}8 + \_\_\_\_ = 5{,}3$

b) $\_\_\_\_ + 0{,}51 = 2$

____ / 2

____ / 5

Task 3.7

Do the calculation.

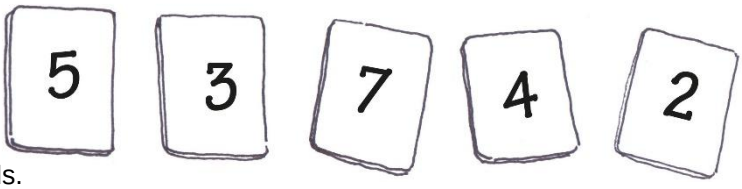
a) $23{,}5 - 1{,}12 =$ _____

b) $6 \cdot 2{,}5 =$ _____

____ / 2

Task 3.8

Look at the 5 cards.
Each card has a number.



Look at all the cards.
Try each card in the fraction.
Choose the card that makes the fraction the biggest.

$$\frac{\square}{13}$$

____ / 1

Task 3.9

Look at the 5 cards.
Each card has one number.

Look at all the cards.
Try each card in the fraction.
Choose the card that makes the fraction the biggest.

$$\frac{12}{\square}$$

____ / 1

____ / 4

____ / 23