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(Print your name)

Example RT#001
Recruitment Test – Maths and Logic

Allotted Time: 60 minutes

Please read the following instructions very carefully before starting the test.
1. Print your name at the top of this page.
2. Answer **all** questions **in this test**, and do not use any red ink.
3. Do not remove the staples; if you need more space for calculations or notes, use the back of the preceding page.
4. For the correct answer you will receive the number of points indicated in the shaded boxes to the right of each question.
5. Please note that a comma is used as the decimal separator in all decimal numbers and a point is used as a thousand separators.
6. The points are distributed according to the time you should need for every exercise.

NO CALCULATORS	NO MOBILE PHONES	NO BOOKS OR NOTES

Page	2	3	4	5	**Total**
Questions	1 - 4	5 - 8	9 – 12	13 - 15	**1 - 15**
Max no. of points	18	13	16	13	**60**
Points received					

1. **Complete** the missing decimals, fractions, percentages and graphics.

   (1 pt. for each correct answer = 7 pts.)

Decimal	Percentage	Fraction
	80%	
0,75		$\frac{3}{4}$
0,4		
		$\frac{1}{20}$

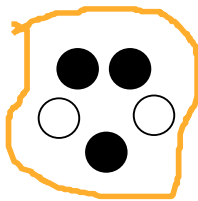2. **Add** or **subtract**, respectively.

   (2 pts. for each correct answer = 4 pts.)

   a) $\dfrac{2}{5} - \dfrac{4}{3} \cdot \left(-\dfrac{9}{8} \right) =$

   b) $\dfrac{3}{5} - 3 + \dfrac{13}{6} =$

3. You have a bag with 2 white and 3 black balls. What is the **probability** to grab at the first try a white ball?

   (3 pts. for the correct answer = 3 pts.)

    ☐ 50%   ☐ 40%   ☐ 60%   ☐ 20%

4. A bottle and its cap together weight 104g; the bottle weights 100g more than the cap.

   How much weights the cap?   **(4 pts. for the correct answer = 4 pts.)**

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Sum of points on page #2

5. **Calculate the value** of the expression.

(3 pts. for the correct answer = 3 pts.)

$$\frac{\frac{3}{2}\cdot\left[\sqrt{(57-8)}-24\div8\right]+6}{\frac{1}{7}\cdot28-\frac{7}{2}}=$$

6. At a dinner you count 5 people. If everybody wants to clink classes with everybody, **how many times** do they clink the classes in total?

(3 pts. for the correct answer = 3 pts.)

☐ 5 times   ☐ 10 times   ☐ 9 times

☐ 25 times   ☐ 20 times

7. Express the proportions in form of **percentages**:

(2 pts. for each correct answer = 4 pts.)

   a)   22   de   2.000   →
   b)   8   de   20 miles   →

8. There are four figures in first row of the illustration. Their sequence is subject to a certain rule. Which of the six figures in the second row completes the sequence according to the rule? **Tick the box** below the correct figure.

(3 pts. for the correct answer = 3 pts.)

☐   ☐   ■   ☐   ☐   ☐

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Sum of points on page #3
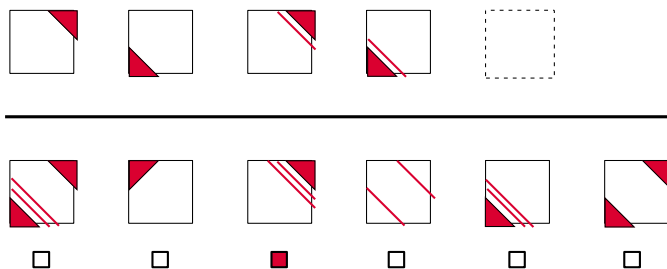
9. The balances are at equilibrium. What is the **weight of the elements**?

(4 pts. for the correct answer = 4 pts.)

⬡ = | 2 kg | ▯ = | | ◎ = | |
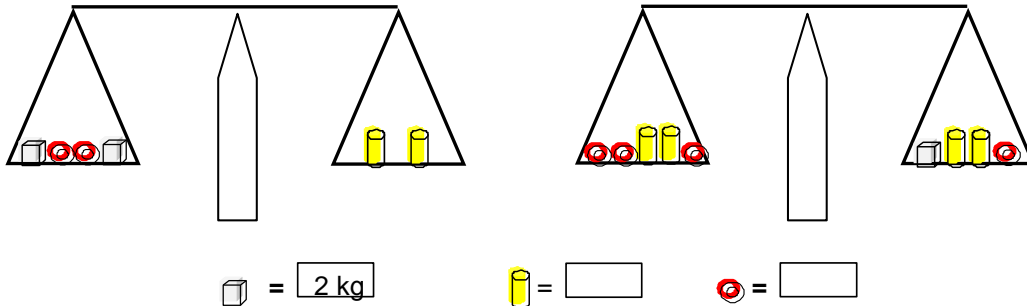
10. What is the relation of the four expressions? Arrange them by value in **increasing order** (as for instance $A < B < C < D$).

(3 pts. for each correct answer = 6 pts.)

a) $A = 10\%$; $B = \dfrac{0,5}{50}$; $C = 0,001$; $D = \dfrac{1}{25} \rightarrow$ __ < __ < __ < __

b) $A = \left(\dfrac{3}{4}\right)^2$; $B = \dfrac{3^2}{4}$; $C = \dfrac{3}{4^2}$; $D = \dfrac{3}{4} \rightarrow$ __ < __ < __ < __

11. When Anna was asked how old she is, she answered: Multiply my age by 99, add 208 to this product and subtract 99. Then will get exactly the result 1000. **How old** is Anna?

(3 pts. for the correct answer = 3 pts.)

12. **Calculate the new price** if the old price of 60 EUR is first increased by 15% and then decreased by 5%:   **(3 pts. for the correct answer = 3 pts.)**

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Sum of points on page #4

13. The numbers in the following schemata are filled in according to a certain system. Complete the schema by filling in the last **empty field**:

(3 pts. for each correct answer = 6 pts.)

a)

7	10	–3
4		0
1	–2	3

b)

3		27
–2	4	–8
1	1	1

14. Transform into **decimal numbers**.

(1 pt. for each correct answer = 3 pts.)

a)　$1,5\% =$

b)　$\dfrac{3}{15} =$

c)　$\dfrac{1}{2} - 25\% =$

15. Old prices have been marked up/down obtaining the new prices. What are the **percentages** of increase or decrease, respectively?

(2 pts. for each correct answer = 4 pts.)

a)　Old Price: 24 EUR; New Price: 20,40 EUR　　$\rightarrow$

b)　Old Price: 1,80 EUR; New Price: 2,25 EUR　　$\rightarrow$

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Sum of points on page #5