

(Print your name)

Example #1 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

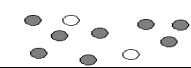
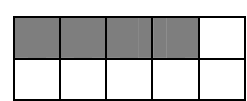
NO MOBILE PHONES

NO BOOKS OR NOTES

Page	2	3	4	Total
Questions	1 - 5	6 - 9	10 - 13	1 - 13
Max no. of points	23	14	23	60
Points received				

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

1 pt. per answer **Total:**

Decimal	Percentage	Fraction	Graphic
	80%		
0,75		$\frac{3}{4}$	
			
		$\frac{1}{6}$	

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

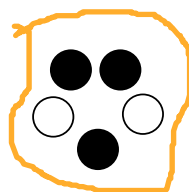
2 pts. per question **Total:**

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

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

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

3 points **Total:**



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?

3 points **Total:**

5. Calculate the **value** of the expression: [New]

3 points **Total:**

$$\frac{\frac{3}{2} \cdot [\sqrt{(57-8)} - 24 \div 8] + 6}{\frac{1}{7} \cdot 28 - \frac{7}{2}} =$$

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 points **Total:**



- 5 times 10 times 9 times
 25 times 20 times

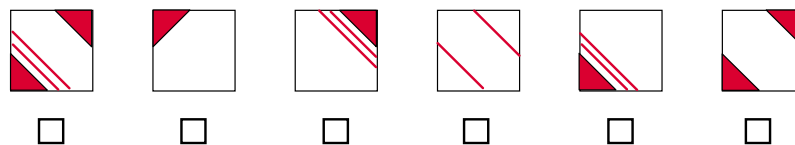
7. Express the proportions in form of **percentages**: [New]

2 pts. per answer **Total:**

- a) 22 out of 2.000 →
 b) 8 out of 20 miles →

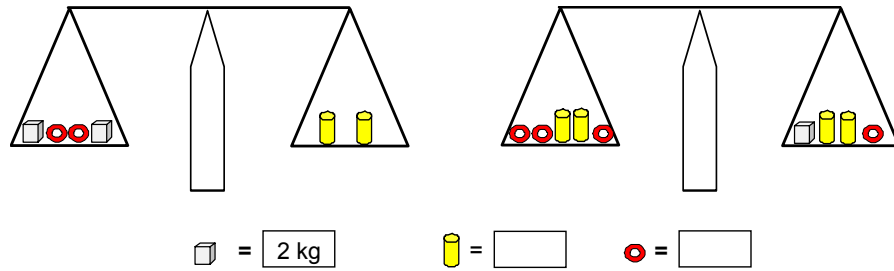
8. There are four figures in first row of the illustration. Their sequence is subject to a certain rule. Which of the six figures in the second row completes the sequence according to the rule? **Tick the box** below the correct figure.

3 points **Total:**



9. The balances are at equilibrium. What is the **weight of the elements**?

4 points **Total:**



10. **What is the relation** of the four expressions? **Order** the four by value in increasing sequence (as for instance $A < B < C < D$).

4 pts. per answer **Total:**

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

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

11. The yearly interest rate of a banking account $i = 6\%$. **How much** will you receive if closing the account after:

2 pts. per question **Total:**

- a) 1 year?
- b) 2 years, if interest is added to the capital at the end of the first year?
- c) 4 months?

12. **Calculate the new price** if the old price of 60 EUR is first increased by 15% and then decreased by 5%:

3 points **Total:**

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. per question **Total:**

a)

7	10	3
4		0
1	-2	-3

b)

3		27
-2	4	-8
1	1	1