Maths Initiative

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(Print your name)

Example RT#002
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**	**All**
Questions	1 - 5	6 - 10	11 - 15	**1 - 15**
Max no. of points	24	15	21	**60**
Points received				

1. Transform the following expressions into **decimals**.

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

a) $0{,}05\% =$

b) $\frac{51{,}4}{200} =$

c) $\frac{36\%}{0{,}6} =$

2. Peter has three times the number of oranges John has. Together they have 48 oranges. **How many oranges** have Peter and how many John?

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

3. Add or subtract, as appropriate, and give the **result as a fraction**:

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

a) $-\frac{7}{5}-(-2)\cdot\frac{5}{6} =$

b) $5+\frac{1}{5}-\frac{36}{24} =$

c) $\frac{21}{9}+\frac{1}{7}-\frac{24}{42} =$

4. You can feed 6 puppies or 2 dogs with 1 can of food. If you have 10 cans and feed 21 puppies. **How many dogs** can you feed with the remaining food?

(5 pts. for the correct answer = 5 pts.)

5. Add or subtract, as appropriate, and give the **result as a fraction**:

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

a) $\frac{3}{4}+\frac{1}{6}\cdot(-7) =$

b) $\frac{12}{7}-2+\frac{2}{3} =$

Sum of points on page #2

6. The base ground of your house measures 20m × 9m. You want to build a rectangular fence surrounding your house which is at a distance of 3m from the house at all sides. **How many meters of fence** do you need?

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

7. Divide and present the result as **a fraction.**

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

$$\frac{-2-\frac{1}{3}+\frac{2}{4}}{\frac{11}{4}}=$$

8. **Divide** and **cancel** all common factors.

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

$$\frac{18}{35}\div\frac{9}{21}\div\frac{12}{25}=$$

9. *Peter* is *Maria´s* father. *Maria* is *Anna´s* niece. *Anna* is *Paul´s* daughter. **Which one** of the following relations is the correct? [8.102]

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

- ❍ *Paul* is *Peter´s* son
- ❍ *Anna* is *Peter´s* aunt
- ❍ *Paul* is *Maria´s* grandfather
- ❍ *Anna* and *Maria* are cousins

10. Calculate the **value** of the expression.

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

$$\left[\frac{2\cdot(3-4)^2-3\cdot(2-4)^2}{5}-\sqrt{4}\right]\cdot 8-5=$$

Sum of points on page #3

11. Calculate the proportions in **percentages**.

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

a) 44 out of 40000 →

b) 9000 out of 100 Thousand →

12. Complete the logical sequence of letters. **Tick** the correct answer.

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

a) aj; bl; cn; dp, ?

☐ eq ☐ er ☐ fr ☐ fq

b) e; b; g; d; i; f; k; h; ?

☐ f ☐ l ☐ k ☐ m

13. Calculate the **totals** due to the given percentages.

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

a) 0,8% of $ 5 Million →

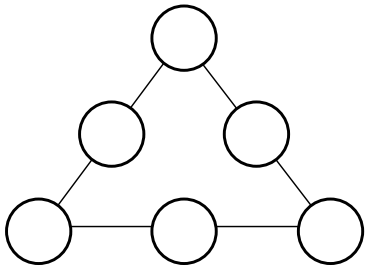
b) 12% of 2.400 clients →

14. Calculate the **future value** of an investment of $ 4.000 after 2 years which increases its value by 3% each year.

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

15. **Allocate** the all numbers **from 1 to 6** (no doubles) in the circles such as the sum of each side of the triangle is 9.

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



Sum of points on page #2