

Bayreuth Arithmetic Test

for the assessment of basic mathematical
competences

– Horizon of expectations –

Instructions for Correction:

- (1) In the correction of the Bayreuth Arithmetic Test, only the correctness of the final results is evaluated. Reflections/Considerations, auxiliary calculations and substeps of the solution are not taken into account in the evaluation.
- (2) The maximum score is only awarded if the final result is completely correct.
- (3) Only whole points are awarded.
- (4) In the tasks 1, 2, 4 and 11 one answer option must be ticked per sub-task. Full points are awarded if the correct answer is ticked in each sub-task. The sub-task will be scored 0 points if a different, multiple or no answer is ticked.
- (5) In the sub-tasks 13a), 16a), 19a) and 22a) two answer options must be ticked. Full points are awarded if the correct answer is ticked in each sub-task. For each correctly ticked answer, one point is awarded. If more than two boxes are ticked, one point will be deducted for each additional box ticked. The task will be scored 0 points in the worst case.

I. Understanding natural numbers

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Task 1

1 point per sub-task

Tick the correct answer.

a) Mia has 26 sweets; Klaus has 31 sweets. Which statement is true?

- ☐ Mia has more sweets than Klaus.
- ☒ Mia has fewer sweets than Klaus.
- ☐ Klaus has fewer sweets than Mia.

b) Ida has 92 sweets; Tom has 83 sweets. Which statement is true?

- ☐ Ida has 92 sweets more than Tom.
- ☐ Tom has 83 fewer sweets than Ida.
- ☒ Ida has 9 more sweets than Tom.

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Task 2

1 point per sub-task

Tick the correct answer.

a) A large deciduous tree has 70 leaves in the summer.

- ☒ That's few.
- ☐ That's normal.
- ☐ That's a lot.

b) 1000 blades of grass grow in a meadow.

- ☒ That's few.
- ☐ That's normal.
- ☐ That's a lot.

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Task 3

1 point per sub-task

Fill in the missing numbers.

a) Count forwards from the given number in steps of ten.

1 973 1 983 1 993 2 003 2 013 2 023

b) Count backwards from the given number in steps of three.

107 104 101 98 95 92

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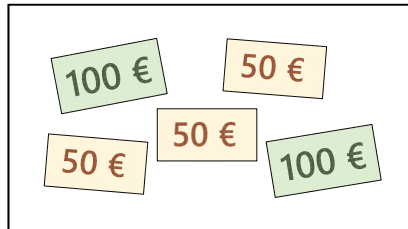
II. Understanding of the place value system

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Task 7

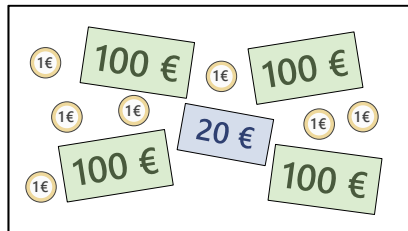
1 point per sub-task

The amounts of money should each be exchanged for ten-euro notes. How many ten-euro notes do you receive?



Answer:

You receive 35
ten-euro notes.



Answer:

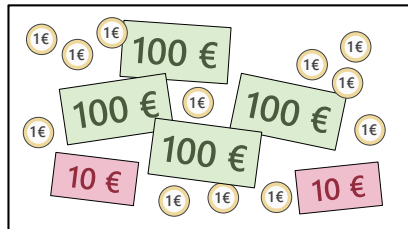
You receive 42
ten-euro notes.

1 / 2

Task 8

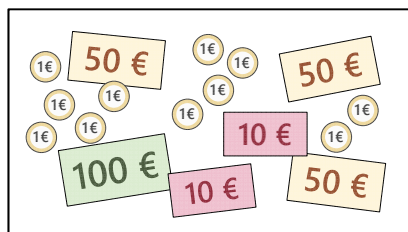
1 point per sub-task

Say how much money is shown in each of the pictures.



Answer:

It is a total of 432 Euros.



Answer:

It is a total of 281 Euros.

1 / 2

Space for thoughts:

[illegible]

Task 9

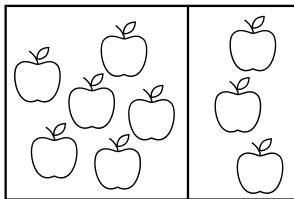
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Sub-task a): 2 points, sub-task b): 1 point

a) Which two maths stories math the calculation. **12 + 4**? Tick the two matching boxes

X	Alina has 12 sweets. She receives 4 sweets from Julian as a gift.
	Laura has 8 sweets. Sven has 4 sweets. They put their sweets together.
	12 friends meet. Each friend has four sweets.
X	Petra has 12 sweets. Amir has 4 more sweets than Petra.

b) Fill in the numbers so that the task matches the picture.



Task: $6 + 3$ or $3 + 6$

1 / 3

Task 14

1 point per sub-task

Write down the result.

a) $26 + 38 = 64$ b) $185 + 46 = 231$

1 / 2

Task 15

1 point per sub-task

Fill in the blank to form a correct equation.

a) $114 + 37 = 151$ b) $5\,624 + 2\,376 = 8\,000$

1 / 2

Space for thoughts:

[illegible]

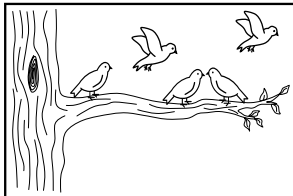
Task 16 sub-task a): 2 points, sub-task b): 1 point

Task 16 sub-task a): 2 points, sub-task b): 1 point

- a) Which two maths stories match the calculation **12 - 4**? Tick the two matching boxes.

	Alina has 12 sweets. She receives 4 sweets as a gift from Julian.
X	Alex has 12 sweets. Moritz has 4 sweets fewer than Alex.
X	Felix has 12 sweets. He gives Hanna 4 sweets.
	Tim gives away 12 sweets to his friends. Everyone should receive 4 sweets.

- b) Fill in the numbers so that the task matches the picture..



Task: $5 - 2$ or $5 - 3$

The solution $3 - 2$ will not be accepted

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Task 17

1 point per sub-task

Write down the result.

a) $73 - 37 = 36$

b) $603 - 598 = 5$

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Task 18

1 point per sub-task

Fill in the blank to form a correct equation.

a) $50 - 24 = 26$

b) $210 - 87 = 123$

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Space for thoughts:

[illegible]

