# Mathematics
## Older Cohort

### Student Information

<table>
<thead>
<tr>
<th>Names and Surnames:</th>
<th>________________________________</th>
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<tbody>
<tr>
<td>Child ID: PE</td>
<td>___ ___ ___ ___ ___ ___</td>
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<tr>
<td>School name and/or number:</td>
<td>________________________________</td>
</tr>
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### General Data

(To be filled by fieldworker)

<table>
<thead>
<tr>
<th>Fieldworker’s name:</th>
<th>________________________________</th>
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<tbody>
<tr>
<td>Fieldworker’s code:</td>
<td>___</td>
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<tr>
<td>Location:</td>
<td>________________</td>
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<tr>
<td>Date (dd/mm/yy):</td>
<td>___ / ___ / ___</td>
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<tr>
<td>Start time:</td>
<td>____ : ____</td>
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</tbody>
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### Data Entry Information

(To be filled by the data entry clerk)

<table>
<thead>
<tr>
<th>Data entry clerk’s name:</th>
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</thead>
<tbody>
<tr>
<td>Data entry clerk’s code:</td>
<td>___</td>
</tr>
<tr>
<td>Date (dd/mm/yy):</td>
<td>___ / ___ / ___</td>
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</tbody>
</table>
INSTRUCTIONS

- Read each question carefully and answer the best you can.
- If you take too long on a question, go to the next one. When you finish you can go back to the ones you haven’t answered.
- Remember to mark all your answers in the booklet.
- In each question there is only one correct answer.
- You may use the extra space on the side to make your calculations.
- You will have up to 40 minutes to answer these questions.

You will find several types of questions in the booklet. Let’s take a look:

**Question 1**
There are questions in which you will have to solve the exercise and then write the correct answer in the blank space.

Example:
Solve the exercise and write the correct answer in the blank space.

\[ 1 + 1 = \boxed{2} \quad 1 + 1 = 2 \]

**Question 2**
There are questions in which you will have to solve the exercise and then mark the option that has the correct answer with an X.

Example:
Solve \( 2 + 2 \). Mark with an X the correct answer.

- a. 2
- b. 3
- c. 4 [X]
- d. 5

\[ 2 + 2 = 4 \]
Question 3

Finally, there are questions where you have to read carefully a math problem, solve it and then mark the correct answer with an X.

Example:

Daniel and Carmen bought pencils. Daniel bought 1 pencil and Carmen bought 2. How many pencils do they have between the both of them?

a. 3 pencils
b. 2 pencils
   1 + 2 = 3

   c. 5 pencils
   d. 1 pencil
1. Which of these is equal to 342? Mark the correct answer with an X. (there is only one correct answer)
   a. $3000 + 400 + 2$
   b. $30 + 40 + 2$
   c. $300 + 40 + 2$
   d. $3 + 4 + 2$

Write the correct answer in the space:

2. $48 \times 5 =$

3. $15 \times 9 =$

4. $27 \div 3 =$

5. $243 + 176 =$

6. $45 \div 15 =$

7. $112 + 45 + 467 =$

This redacted item was taken from TIMSS 2003 Released Items: Fourth Grade Mathematics (Unique ID: M011007).
Publisher: TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College.
8. Solve $35678 - 29142$. Mark the correct answer with an X. (there is only one correct answer)
   
   a. 16 536
   b. 64 820
   c. 54 736
   d. 6 536

9. Solve $921 \times 123$. Mark the correct answer with an X. (there is only one correct answer)
   
   a. 113 283
   b. 5 526
   c. 102 283
   d. 942 183

Write the correct answer in the space.

10. $18.23 - 0.2 = \underline{\hspace{2cm}}$

11. $25\% \text{ de } 240 = \underline{\hspace{2cm}}$

12. $9.81 + 7.62 = \underline{\hspace{2cm}}$
13. \[ \frac{9}{8} \times \frac{2}{3} = \]

14. Solve 3.5 \times 2.4. Mark the correct answer with an X. (there is only one correct answer)
   a. 0.84
   b. 2.10
   c. 84.0
   d. 8.40

15. Solve 0.624 ÷ 1.04. Mark the correct answer with an X. (there is only one correct answer)
   a. 0.06
   b. 0.60
   c. 60
   d. 6
Read carefully and mark the correct answer with an X for each question (there is only one correct answer).

16. It takes Chris 4 minutes to wash a window. He wants to know how many minutes it will take him to wash 8 windows at this rate. He should?
   a. multiply 4 x 8
   b. divide 8 by 4
   c. subtract 4 from 8
   d. add 8 and 4

17. A piece of rope 204 cm. long is cut into 4 equal pieces. Which of these gives the length of each piece in centimeters?
   a. 204 + 4
   b. 204 x 4
   c. 204 – 4
   d. 204 ÷ 4
18. A garden has 14 rows. Each row has 20 plants. The gardener then plants 6 more rows with 20 plants in each row. How many plants are there now altogether?

a. 280  
b. 300  
c. 400  
d. 500

19. A cake was cut into 8 pieces of equal size. [John] ate 3 pieces of the cake. What fraction of the cake did [John] eat?

a. \( \frac{3}{8} \)  
b. \( \frac{1}{2} \)  
c. \( \frac{3}{4} \)  
d. \( \frac{1}{3} \)

20. [Maria] has 6 red boxes. Each box has 4 pencils inside. She also has 3 blue boxes. Each blue box has 2 pencils inside. How many pencils does [Maria] have altogether?

a. 36  
b. 15  
c. 24  
d. 30
21. There are 36 passengers on a bus. The ratio of children to adults on the bus is 5 to 4. How many children are on the bus?

   a. 9  
   b. 16  
   c. 20  
   d. 24  

Read carefully the Texts and mark the correct answer with an X for each question.

TEXT 1
Below is a receipt that [Oscar] received after making a purchase in a cloth shop. There are some blank spaces in the receipt where information is missing. Read carefully.

<table>
<thead>
<tr>
<th>No. of items</th>
<th>DESCRIPTION</th>
<th>UNIT PRICE</th>
<th>LINE TOTAL</th>
<th>TOTAL DISCOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Trousers</td>
<td>[$12]</td>
<td>[$ 120]</td>
<td>[$ 24]</td>
</tr>
<tr>
<td>25</td>
<td>T-shirts</td>
<td>[$ 13]</td>
<td>[$ 325]</td>
<td>No discount</td>
</tr>
<tr>
<td>78</td>
<td>Socks</td>
<td>[$ 4]</td>
<td>[$ 312]</td>
<td>[$ 35]</td>
</tr>
<tr>
<td>37</td>
<td>Dresses</td>
<td>[$ 20]</td>
<td>[$ 740]</td>
<td>No discount</td>
</tr>
<tr>
<td>49</td>
<td>Skirts</td>
<td>[$ 8]</td>
<td>[$ 392]</td>
<td>[$ 33]</td>
</tr>
</tbody>
</table>

SUBTOTAL: [$ 92]  
TOTAL DISCOUNT: 
TOTAL: 

[Kathy´s] Shop  
RECEIPT N° 0568  
Date: [October 4th, 2012]
Based on the receipt, answer the following questions by marking the correct answer with an X. (there is only one correct answer)

22. How many items did [Oscar] buy?
   a. 199
   b. 209
   c. 198
   d. 208

23. [Andrea] wants to buy 38 T-shirts. How much will she pay?
   a. [$ 325]
   b. [$ 494]
   c. [$ 484]
   d. [$ 304]

24. How much did [Oscar] spend in [Kathy’s] shop?
   a. [$ 1982]
   b. [$ 1889]
   c. [$ 1981]
   d. [$ 1797]
25. [Oscar] bought t-shirts and socks. How much more did [Oscar] spend on t-shirts than on socks?

   a. [Oscar] spent $13 more buying t-shirts than socks
   b. [Oscar] spent $23 more buying t-shirts than socks
   c. [Oscar] spent $58 more buying t-shirts than socks
   d. [Oscar] spent $48 more buying t-shirts than socks

TEXT 2
Below is a medicine description. Read it carefully.

[CIPIRINA]

INGREDIENTS: Each tablet contains 500 mg acetaminophen acid

DOSAGE: ORAL. 1 or 2 tablets every 4 hours, preferably accompanied by food, for not longer than 28 days. In the case of children, only 1 tablet every 8 hours for not longer than 10 days.

INDICATIONS: [Cipirina] is often used to relieve different symptoms. This medication relieves mild to moderate pain in the muscles of the hands and legs. It reduces fever, bone pain and menstrual symptoms.

CAUTION: [Cipirina] may cause drowsiness, gastric pain, allergies or ulcers. Children up to 10 years with chicken pox and asthma should consult with their doctor before taking this medicine.

Each box costs $15
Based on the text, answer the following questions by marking the correct answer with an X. (there is only one correct answer)

26. According to the description, how many tablets can a child take in one day?
   a. 2 tablets
   b. 1 tablet
   c. 3 tablets
   d. 8 tablets

27. If [Arturo] takes the largest amount of pills recommended for adults, how many more pills can he take compared with a child in two days?
   a. [Arturo] can take 18 pills more than a child
   b. [Arturo] can take 3 pills more than a child
   c. [Arturo] can take 9 pills more than a child
   d. [Arturo] can take 7 pills more than a child

28. [Ana’s] doctor tells her to take 2 tablets every 12 hours for a week. How many mg of acetaminophen will [Ana] have taken in total by the end of the week?
   a. 14 000 mg
   b. 7 000 mg
   c. 21 000 mg
   d. 12 000 mg
29. [Mario] wants to buy 7 boxes. When he was going to pay the cashier told him that there was a 25% discount on the tablets he was buying. Which mathematical operation(s) is (are) needed to get the amount of money he paid for his medicine?

a. Only multiplication

b. Multiplication, division and subtraction

c. Division and multiplication

d. Addition and subtraction

YOU HAVE FINISHED THE EXERCISES. THANKS!