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Impact Evaluation of Mindspark Centers

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**Math Baseline Test**  
Grades 4 and 5

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1. Name of the Mindspark center:
2. Center ID:
3. Name of the student:
4. Student ID:

**MBLG451:** YL. Content: Algebra; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: B.

1. Write the correct answer in the space:

$$48 \times 5 = \square$$

- A. 200
- B. 240
- C. 420
- D. 500

**MBLG452:** YL. Content: Algebra; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: C.

2. Write the correct answer in the space:

$$52 - 7 = \square$$

- A. 59
- B. 25
- C. 45
- D. 364

**MBLG453:** YL. Content: Algebra; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: A.

3. Write the correct answer in the space:

$$243 + 176 = \square$$

- A. 419
- B. 67
- C. 70
- D. 914

**MBLG454:** YL. Content: Algebra; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: A.

4. Write the correct answer in the space:

$$27 \div 3 = \square$$

- A. 9
- B. 3
- C. 24
- D. 30

**MBLG455:** YL. Content: Algebra; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: B.

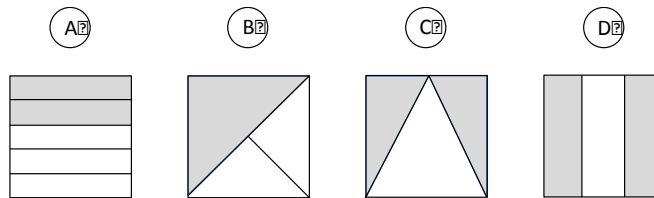
5. Write the correct answer in the space:

$$49 - 28 = \boxed{\phantom{00}}$$

- A. 77
- B. 21
- C. 12
- D. 39

**MBLG456:** TIMSS 2003. Content: Number; Topic: Fractions and decimals; Domain: Using concepts; Key: D.

6. Which shows  $\frac{2}{3}$  of the square shaded?



**MBLG457:** TIMSS 2003. Content: Number; Topic: Whole numbers; Domain: Using concepts; Key: B.

7. Which digit is in the hundreds place in 2345?

- A. 2
- B. 3
- C. 4
- D. 5

**MBLG458:** TIMSS 2003. Content: Number; Topic: Whole numbers; Domain: Solving routine problems; Key: A.

8. It takes Diksha 4 minutes to wash a window. She wants to know how many minutes it will take her to wash 8 windows at this rate. She should:

- A. multiply  $4 \times 8$
- B. divide 8 by 4
- C. subtract 4 from 8
- D. add 8 and 4

**MBLG459:** TIMSS 2003. Content: Measurement; Topic: Attributes and units; Domain: Knowing facts and procedures; Key: C.

9. Which of these could be the weight (mass) of an adult?

- A. 1 kg
- B. 6 kg
- C. 60 kg
- D. 600 kg

**MBLG4510:** TIMSS 2003. Content: Data; Topic: Data interpretation; Domain: Solving routine problems; Key: B.

10. This chart shows temperature readings made at different times on four days.

Temperatures					
	6 a.m.	9 a.m.	Noon	3 p.m.	8 p.m.
Monday	15°	17°	20°	21°	19°
Tuesday	15°	15°	15°	15°	9°
Wednesday	8°	10°	14°	14°	15°
Thursday	8°	11°	14°	14°	20°

When was the highest temperature recorded?

- A. noon on Monday
- B. 3 p.m. on Monday
- C. noon on Tuesday
- D. 3 p.m. on Wednesday

**MBLG4511:** QES. Content: Measurement; Topic: Tools, techniques, and formulas; Domain: Solving routine problems; Key: C.

11. Here is a calendar for December.

December						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Santosh's birthday is on Thursday, December 2. He is going on a trip exactly 3 weeks later. On what day will he go on the trip?

- A. December 16th
- B. December 21st
- C. December 23rd
- D. December 30th

**MBLG4512:** QES. Content: Algebra; Topic: Equations and formulas; Domain: Using concepts; Key: D.

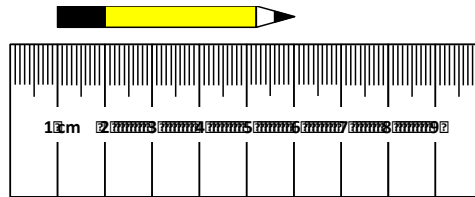
12. What number should be put in the empty box to get the subtraction problem correct?

$$\begin{array}{r} \boxed{\phantom{00}} 6 \\ - 37 \\ \hline 19 \end{array}$$

- A. 1
- B. 2
- C. 4
- D. 5

**MBLG4513:** QES. Content: Measurement; Topic: Tools, techniques, and formulas; Domain: Reasoning; Key: B.

13. The length of this pencil is about \_\_\_\_\_.



- A. 4 cm
- B. 5 cm
- C. 6 cm
- D. 7 cm

**MBLG4514:** QES. Content: Algebra; Topic: Patterns; Domain: Reasoning; Key: C.

14. See the pattern of numbers in the number chart below:

	Column 1	Column 2	Column 3	Column 4	Column 5
Row 1	4	8	12	16	20
Row 2	24	28	32	36	40
Row 3	44	48	52	56	60
Row 4	64	68	72	76	80
Row 5					

Which of these is the correct way of finding the number that will appear just below 64 in column 1?

- A. adding 1 to 64
- B. adding 4 to 64
- C. adding 20 to 64
- D. adding 44 to 64

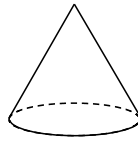
**MBLG4515:** QES. Content: Measurement; Topic: Attributes and units; Domain: Knowing facts and procedures; Key: C.

15. The unit “grams” could be used to tell:

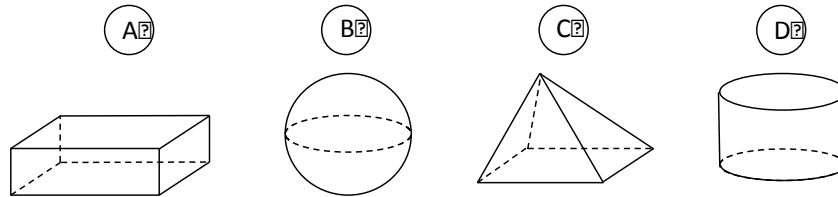
- A. the number of mangoes in a box
- B. the space occupied by a book
- C. how heavy your pencil box is
- D. the thickness of a dictionary

**MBLG4516:** QES. Content: Geometry; Topic: Two- and three-dimensional shapes; Domain: Knowing facts and procedures; Key: D.

16. Here is a cone. Part of its surface is flat and part of its surface is curved.



Which of these solids also has a flat surface and a curved surface?



**MBLG4517:** SLS. Content: Number; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: B.

17. Which of these has the same value as 342?

- A.  $3000 + 400 + 2$
- B.  $300 + 40 + 2$
- C.  $30 + 4 + 2$
- D.  $3 + 4 + 2$

**MBLG4518:** SLS. Content: Number; Topic: Whole numbers; Domain: Solving routine problems; Key: C.

18. Shaheen has 2 pencil boxes. Each box has 5 pencils. How will you find the total number of pencils in the two pencil boxes?

- A.  $2 + 5$
- B.  $5 - 2$
- C.  $2 \times 5$
- D.  $2 + 2$

**MBLG4519:** SLS. Content: Algebra; Topic: Equations and formulas; Domain: Solving routine problems; Key: D.

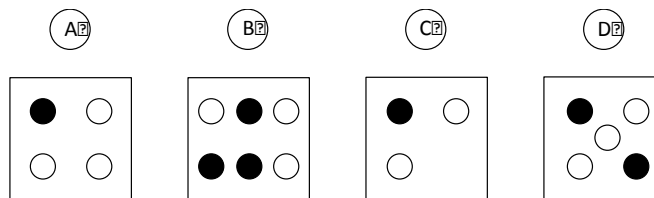
19. Write the appropriate number in the box.

$$19 + \boxed{\phantom{00}} = 32$$

- E. 12
- F. 3
- G. 31
- H. 13

**MBLG4520:** SLS. Content: Number; Topic: Fractions and decimals; Domain: Using concepts; Key: B.

20. In which figure are one-half of the dots black?



**MBLG4521:** SLS. Content: Algebra; Topic: Patterns; Domain: Reasoning; Key: D.

21. Fill in the missing numbers.

$$16, 15, 14, \underline{\hspace{1cm}}, 12, 11, 10$$

- A. 15
- B. 17
- C. 12
- D. 13

**MBLG4522:** SLS. Content: Algebra; Topic: Equations and formulas; Domain: Using concepts; Key: D.

22. Fill in the appropriate number in the box.

$$3 \times \boxed{\phantom{00}} = 3 + 3 + 3 + 3$$

- A. 3
- B. 4
- C. 5
- D. 12

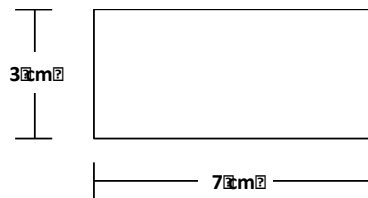
**MBLG4523:** TIMSS 2007. Content: Number; Topic: Equations and formulas; Domain: Reasoning; Key: C.

23. The temperature at 7 a.m. one morning was  $12^{\circ}\text{C}$ . It increased by  $2^{\circ}\text{C}$  every hour until it reached  $20^{\circ}\text{C}$  at 11 a.m. What was the temperature at 9 a.m.?

- A.  $14^{\circ}\text{C}$
- B.  $15^{\circ}\text{C}$
- C.  $16^{\circ}\text{C}$
- D.  $17^{\circ}\text{C}$

**MBLG4524:** TIMSS 2007. Content: Geometry; Topic: Two- and three-dimensional shapes; Domain: Knowing facts and procedures; Key: C.

24. What is the perimeter of this rectangle?



- A. 7 cm
- B. 10 cm
- C. 20 cm
- D. 21 cm

**MBLG4525:** TIMSS 2007. Content: Number; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: B.

25.  $64 \div \blacksquare = \blacksquare$

In this number sentence,  $\blacksquare$  stands for the same number. What number does  $\blacksquare$  stand for?

- A. 4
- B. 8
- C. 16
- D. 32

**MBLG4526:** YL. Content: Number; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: B.

26.  $6 \div 3 =$

- A. 3
- B. 2
- C. 6
- D. 1



**MBLG4527:** YL. Content: Number; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: B.

27. Which of these is the name for 9740?

- A. Nine thousand seventy four
- B. Nine thousand seven hundred forty
- C. Nine thousand sixty four hundreds
- D. Nine hundred seventy thousand

**MBLG4528:** YL. Content: Number; Topic: Whole numbers; Domain: Knowing facts and procedures; Key: D.

28.  $112 + 45 + 467 =$

- A. 157
- B. 512
- C. 579
- D. 624

**MBLG4529:** SLS. Content: Algebra; Topic: Patterns; Domain: Reasoning; Key: C.

29. Write the number that comes between:

18, \_\_\_\_, 20

- A. 18
- B. 19
- C. 20
- D. 21

**MBLG4530:** YL. Content: Number; Topic: Fractions and decimals; Domain: Knowing facts and procedures; Key: A.

30.  $18.23 - 0.2 =$

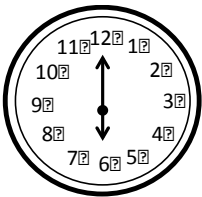
- A. 18.03
- B. 18.21
- C. 16.23
- D. 18.30

**MBLG4531:** YL. Content: Number; Topic: Fractions and decimals; Domain: Using concepts; Key: B.

31. 25% of 200

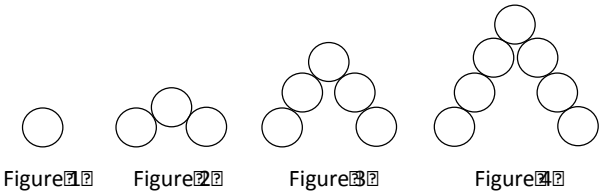
- A. 25
- B. 50
- C. 100
- D. 18.30

32. What time is this clock showing?



- A. Half past twelve
- B. Six o'clock
- C. Half past six
- D. Twelve o'clock

33. A sequence of four figures is shown below:



What number is missing from the table below?

Figure	Number of circles
1	1
2	3
3	5
4	

- A. 4
- B. 7
- C. 6
- D. 9

34.  $5,631 + 286 =$

- A. 5,917
- B. 5,971
- C. 297,631
- D. 5.971

**MBLG4535:** YL. Content: Number; Topic: Fractions and decimals; Domain: Knowing facts and procedures; Key: D.

35.  $35678 - 29142 =$

- A. 16536
- B. 64820
- C. 54736
- D. 6536