ORDER OF OPERATIONS

A WHY THE ORDER MATTERS

A.1 ADDING FROM LEFT TO RIGHT

Ex 1:

$$1 + 3 + 4 \quad = \quad \boxed{} + \boxed{}$$
$$=$$
$$\square + \square + \square \quad = \quad \square + \square$$
$$=$$

Ex 2:

$$5 + 3 + 2 \quad = \quad \boxed{} + \boxed{}$$
$$=$$
$$\square + \square + \square \quad = \quad \square + \square$$
$$=$$

Ex 3:

$$3 + 1 + 8 \quad = \quad \boxed{} + \boxed{}$$
$$=$$
$$\square + \square + \square \quad = \quad \square + \square$$
$$=$$

Ex 4:

$$3 + 8 + 6 \quad = \quad \boxed{} + \boxed{}$$
$$=$$
$$\square + \square + \square \quad = \quad \square + \square$$
$$=$$

A.2 ADDING FROM LEFT TO RIGHT

Ex 5:

$$1 + 3 + 4 \quad = \quad \boxed{} + \boxed{}$$
$$=$$

Ex 6:

$$5 + 4 + 7 \quad = \quad \boxed{} + \boxed{}$$
$$=$$

Ex 7:

$$7 + 3 + 5 \quad = \quad \boxed{} + \boxed{}$$
$$=$$

Ex 8:

$$9 + 8 + 1 \quad = \quad \boxed{} + \boxed{}$$
$$=$$

A.3 ADDING AND SUBTRACTING FROM LEFT TO RIGHT

Ex 9:

$$3 + 8 - 6 \quad = \quad \boxed{} - \boxed{}$$
$$=$$
$$\square + \square - \square \quad = \quad \square \; \square - \square$$
$$=$$

Ex 10:

$$9 + 9 - 6 \quad = \quad \boxed{} - \boxed{}$$
$$=$$
$$\square + \square - \square \quad = \quad \square \; \square - \square$$
$$=$$

Ex 11:

$$7 + 10 - 1 \quad = \quad \boxed{} - \boxed{}$$
$$=$$
$$\square + \square - \square \quad = \quad \square \; \square - \square$$
$$=$$

1

Ex 12:

$$3 + 6 - 9 \quad = \quad \boxed{} - \boxed{}$$
$$= \quad \boxed{}$$

$$= \quad$$

A.4 MULTIPLYING AND DIVIDING FROM LEFT TO RIGHT

Ex 13:

$$2 \times 3 \times 2 \quad = \quad \boxed{} \times \boxed{}$$
$$= \quad \boxed{}$$

Ex 14:

$$4 \times 2 \times 2 \quad = \quad \boxed{} \times \boxed{}$$
$$= \quad \boxed{}$$

Ex 15:

$$4 \div 2 \times 2 \quad = \quad \boxed{} \times \boxed{}$$
$$= \quad \boxed{}$$

Ex 16:

$$2 \times 4 \div 2 \quad = \quad \boxed{} \div \boxed{}$$
$$= \quad \boxed{}$$

A.5 PERFORMING OPERATIONS WITHOUT PARENTHESES

Ex 17:

$$4 + 2 \times 3 = \boxed{}$$

Ex 18:

$$2 \times 3 - 1 = \boxed{}$$

Ex 19:

$$1 + 3 \times 3 = \boxed{}$$

Ex 20:

$$10 - 2 \times 3 = \boxed{}$$

Ex 21:

$$10 \div 2 + 3 = \boxed{}$$

Ex 22:

$$10 - 4 \div 2 = \boxed{}$$

A.6 PERFORMING OPERATIONS WITH PARENTHESES

Ex 23:

$$2 \times (2 + 3) = \boxed{}$$

Ex 24:

$$(2 + 4) \div 2 = \boxed{}$$

Ex 25:

$$4 \times (4 \div 2) = \boxed{}$$

Ex 26:

$$3 + (3 \times 2) = \boxed{}$$

Ex 27:

$$(7 - 1) \times 3 = \boxed{}$$

A.7 PERFORMING MULTI-OPERATIONS

Ex 28:

$$4 + 2 \times (2 + 3) = \boxed{}$$

Ex 29:

$$10 - 2 \times (5 - 3) = \boxed{}$$

Ex 30:

$$3 \times (7 - 2) + 1 = \boxed{}$$

Ex 31:

$$12 \div (6 - 2) + 3 = \boxed{}$$

Ex 32:

$$(2 + 8) \div 5 - 2 = \boxed{}$$

B SOLVING PROBLEMS

B.1 BUILDING THE EXPRESSION

MCQ 33: A farmer has 3 fields, and each field contains 10 apple trees. If each tree produces 8 apples, what is the total number of apples?
Choose the correct expression

☐ $3 + 10 \times 8$

☐ $3 \times 10 \times 8$

☐ $(10 \times 8) \div 3$

MCQ 34: A library has 50 books. 14 books are loaned out. The remaining books are then placed equally on 4 shelves. How many books are on each shelf?
Choose the correct expression

☐ $50 - (14 \div 4)$

☐ $50 + 14 \div 4$

☐ $(50 - 14) \div 4$

MCQ 35: A baker makes 5 trays of cookies, with 12 cookies on each tray. He sells 40 cookies. How many cookies are left?
Choose the correct expression

☐ $(5 \times 12) - 40$

☐ $5 \times (12 - 40)$

☐ $5 + 12 - 40$

MCQ 36: Sam has 20 dollars. He buys 3 notebooks that cost 4 dollars each. He then finds 5 dollars. How much money does he have now?
Choose the correct expression

☐ $20 - 3 + 4 + 5$

☐ $20 - (3 \times 4) + 5$

☐ $(20 - 3) \times 4 + 5$

MCQ 37: There are 30 students in a class. Today, 2 students are absent. The teacher divides the remaining students into 4 equal teams for a game. Which expression shows the number of students on each team?
Choose the correct expression

☐ $30 - 2 \div 4$

☐ $(30 - 2) \div 4$

☐ $30 \div 4 - 2$

MCQ 38: For a school bake sale, Maria bakes 4 batches of 12 cookies. At the same time, John bakes 3 batches of 10 cookies. Which expression represents the total number of cookies they baked together?
Choose the correct expression

☐ $4 + 12 \times 3 + 10$

☐ $(4 + 3) \times (12 + 10)$

☐ $(4 \times 12) + (3 \times 10)$

MCQ 39: Leo starts with 5 bags of marbles, and each bag contains 10 marbles. He loses 8 marbles during a game. Which expression shows how many marbles Leo has left?
Choose the correct expression

☐ $5 \times (10 + 8)$

☐ $(5 \times 10) - 8$

☐ $5 + 10 - 8$

B.2 SOLVING REAL-WORLD PROBLEMS

Ex 40: Hugo is 5 years old. Louis is twice as old as Hugo, plus 3 years. What is the age of Louis?

Louis is ☐ years old.

Ex 41: A zoo houses 15 animals in the morning. Throughout the day, 5 new animals are admitted. In the evening, the zookeeper divides the total number of animals into 5 equal groups. How many animals are in each group?

There are ☐ animals in each group.

Ex 42: You have 3 apples, you purchase 5 more, and then you share the total quantity equally with a friend. How many apples are left?

You retain ☐ apples.

Ex 43: Hugo has 12 pencils. He gives 3 pencils to each of his 2 friends and then purchases 5 more. What is the final number of pencils Hugo possesses?

Hugo possesses ☐ pencils.