

1. Matthew is given a chart for a function machine.

**Function Machine
Results**

Input Number	Output Number
33	132
56	224
12	48
49	

What is the *best* way for Matthew to determine the output number for 49?

- A use a number line graph
- B draw a circle graph
- C draw a pictograph
- D find a relationship

2. Danny and Julie have new sticker books. Danny will put 4 stickers in his book every day and Julie will put 6 stickers in her book every day.

Day	Danny	Julie
1	4	6
2	8	12
3	12	18

How many stickers will Danny have when Julie has 30 in her book?

- A 20
 - B 24
 - C 28
 - D 30
3. Bert and Chad are saving quarters. Bert saves 4 quarters for every 3 that Chad saves. How many quarters will Chad have saved when Bert has saved 24?
- A 6
 - B 12
 - C 18
 - D 23

4. What number pair comes next in the table?

X	Y
8	2
12	3
16	4
20	5

- A 24 and 6
- B 24 and 5
- C 22 and 6
- D 22 and 5
5. Nora needs 2 eggs for every cake she bakes. Which pair describes cakes and eggs correctly?
- A 2 cakes, 5 eggs
- B 2 cakes, 6 eggs
- C 3 cakes, 5 eggs
- D 3 cakes, 6 eggs

6. Which rule could be used to describe the ordered pairs in this group?

(4, 2), (8, 4), (10, 5)

- A The second number is equal to half of the first number.
- B The second number is equal to the first number plus 2.
- C The second number is equal to twice the first number.
- D The second number is equal to the first number minus 2.

7. Using this diagram, which of the following statements is true?

$$\triangle \triangle = \square \triangle \square \quad \triangle \square = \bigcirc \bigcirc$$

$$\triangle = 40$$

- A $\bigcirc < \triangle$
- B $\square > \bigcirc$
- C $\triangle < \square$
- D $\triangle < \bigcirc$
-
8. Maria made seven dozen peanut butter cookies. She needs 144 cookies for the bake sale. Which expression gives the number of cookies she still needs to make?
- A $144 - (7 \times 12)$
- B $(7 \times 12) + 144$
- C $(144 - 7) \times 12$
- D $7 + 144 \times 12$





9. Conrad used a table to show how much money he saved compared to how much money he earned.

Money Earned	7	11	13	18
Money Saved	2	6	8	13

If E represents the amount of money earned, which number sentence states the rule used to determine the amount Conrad saved?


- A $E - 5$
- B $E + 5$
- C $E \times 5$
- D $E \div 5$

10. Ginnie used a table of values to help find solutions to problems.

Table of Values	
	= 4
	= 5
	= 6
	= 7

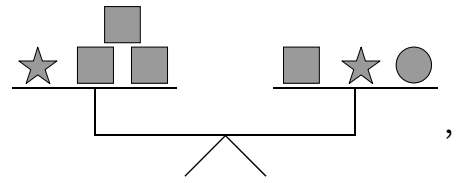
Ginnie wants to solve a problem that uses a symbol not on the table of values:

$$(4 + \text{parallelogram}) \times \text{square} = 60$$

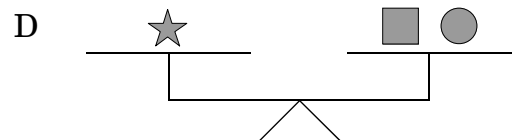
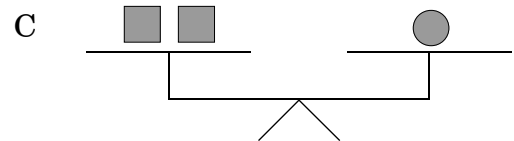
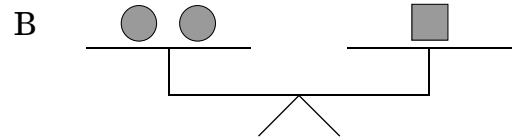
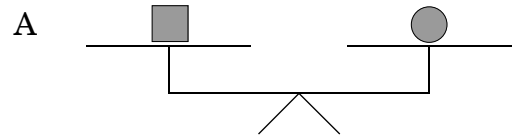
What is the value of  ?

- A 4
- B 5
- C 8
- D 12

11. If



which of the following must be true?



12. What is the value of the expression $4 \times 6 + 10 \div 2$?
- A 44
- B 32
- C 29
- D 17

13. Mr. Wade wrote an expression on the board.

$$37 - 3 \times 8 + 5 =$$

Which operation should be completed first to find the value of the expression?

- A $37 - 3$
- B 3×8
- C $8 + 5$
- D $37 + 5$

Answers to EOG Grade 4 Math Sample Items

Goal 5

1. Objective 5.01

Identify, describe, and generalize relationships in which: a) Quantities change proportionally. b) Change in one quantity relates to change in a second

Thinking Skill: Analyzing **Correct Answer:** D

2. Objective 5.01

Identify, describe, and generalize relationships in which: a) Quantities change proportionally. b) Change in one quantity relates to change in a second

Thinking Skill: Applying **Correct Answer:** A

3. Objective 5.01

Identify, describe, and generalize relationships in which: a) Quantities change proportionally. b) Change in one quantity relates to change in a second

Thinking Skill: Applying **Correct Answer:** C

4. Objective 5.01

Identify, describe, and generalize relationships in which: a) Quantities change proportionally. b) Change in one quantity relates to change in a second

Thinking Skill: Applying **Correct Answer:** A

5. Objective 5.01

Identify, describe, and generalize relationships in which: a) Quantities change proportionally. b) Change in one quantity relates to change in a second

Thinking Skill: Analyzing **Correct Answer:** D

6. Objective 5.01

Identify, describe, and generalize relationships in which: a) Quantities change proportionally. b) Change in one quantity relates to change in a second

Thinking Skill: Applying **Correct Answer:** A

7. Objective 5.02

Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.

Thinking Skill: Integrating **Correct Answer:** A

8. Objective 5.02

Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.

Thinking Skill: Analyzing **Correct Answer:** A

9. Objective 5.02

Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.

Thinking Skill: Analyzing

Correct Answer: A

10. Objective 5.02

Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.

Thinking Skill: Analyzing

Correct Answer: C

11. Objective 5.03

Verify mathematical relationships using: a) Models, words, and numbers. b) Order of operations and the identity, commutative, associative, and distributive

Thinking Skill: Analyzing

Correct Answer: C

12. Objective 5.03

Verify mathematical relationships using: a) Models, words, and numbers. b) Order of operations and the identity, commutative, associative, and distributive

Thinking Skill: Applying

Correct Answer: C

13. Objective 5.03

Verify mathematical relationships using: a) Models, words, and numbers. b) Order of operations and the identity, commutative, associative, and distributive

Thinking Skill: Applying

Correct Answer: B