

6th Grade Math STAAR Practice

Week 3

Name: _____

Score: _____

Day 1

1 All the minutes used by Mrs. Larsen and her 3 children for cell phone calls last month were reported on the same bill. The bill showed that a total of 1,850 minutes were used last month.

- Mrs. Larsen used 462 minutes.
- Her son used twice as many minutes as she used.
- Each of her daughters used the same number of minutes.

The expression below can be used to find the number of minutes each of Mrs. Larsen's daughter's used.

$$(1850 - 462 - 462 \times 2) \div 2$$

What was the number of minutes each of Mrs. Larsen's daughter's used?

- A** 926 min
- B** 1 min
- C** 1, 156 min
- D** 232 min

2 Which expression is equivalent to $2^3 - 3(2) + 3(9) + 1$?

- F** $26 + (4 \times 3) \div 3$
- G** $(16 \times 2 + 4) - 4$
- H** $12 + (16 \div 4) + 2^3$
- J** $(2 \times 12) \div (4 \times 5)$

3 What is the value of the expression $-4(18 \div 9) \times 6$?

- A 14
- B -2
- C 2
- D -48

4 Angie had a bag that contained 14 oranges. She put 3 of the oranges in her brother's lunchbox. She put 2 times as many oranges in the refrigerator as she put in her brother's lunchbox. She used the rest of the oranges to make orange juice. Based on the expression below, how many oranges did Angie use to make orange juice?

$$14 - (3 + 2 \cdot 3)$$

- F 8
- G 5
- H 1
- J 9

5 Which of the following expressions would be equivalent to $10 + 2^3 + 3 \times 7$?

- A $(3 + 2) \times 8 - 3$
- B $6 \times 3 \div 2 \times 4$
- C $20 + 24 - (5 + 3)$
- D $(6 \times 4 + 4) + 11$

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Day 2

1 Bruno's teacher wrote five expressions on the board. The teacher told the class to determine which expressions were equivalent. The expressions are shown in the table below.

Which of the following student responses are correct?

A	$2^3(32 \div 4^2)$
B	$-7(14 - 4^2) + 2$
C	$8^2 + 4(5 - 5^2)$
D	$6^2 - 13(3^2 - 5)$
E	$-22 + 2(3 + 2^4)$

- A** A is equivalent to B; C, D, and E are equivalent to each other.
- B** A is equivalent to E; and B, C, D are equivalent to each other.
- C** A, B, and E are equivalent to each other; and C is equivalent to D.
- D** They are all equivalent because they are all equivalent to 16.

2 Frank had \$65. He spent \$2 per day for 7 days. Then he was given \$9 to divide equally between himself and his 2 brothers. The following expression can be used to find the amount of money Frank had after that.

$$65 - 2 \cdot 7 + 9 \div 3$$

Based on this expression, what is the amount of money Frank had remaining?

- F** \$150
- G** \$54
- H** \$20
- J** \$444

3 To simplify the expression $5^2 + 4 \times 3 - 12 \div 4$, which step should be performed first?

A 4×3

B $3 - 12$

C 5^2

D $12 \div 4$

4. Which number has a prime factorization of $2^3 \times 3^2 \times 5$?

F 180

G 270

H 360

J Not here

5 What is the prime factorization of 150?

A $2^2 \times 3 \times 5$

B $2^2 \times 5^3$

C $2 \times 3 \times 5^2$

D $2^2 \times 3^2 \times 5$

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Day 3

- 1** Simplify the following expression: $7 + 20 \div 4 + (5 + 3)^2$
- A** 26
- B** 28
- C** 76
- D** Not here
- 2** Which is the prime factorization of 48?
- F** $4^2 \times 3$
- G** $2^2 \times 12$
- H** $2^4 \times 3$
- J** Not here
- 3** Gracie borrowed \$92 from her father. She has already paid back \$12. She will pay him another \$16 on Monday and then make equal payments of \$4 until the rest of the money has been repaid. The expression below can be used to find the number of equal payments Gracie will need to make in order to repay the money.

$$\frac{92 - (12 + 16)}{4}$$

How many equal payments will Gracie need to make in order to repay the money?

- A** 24
- B** 16
- C** 5
- D** 27

4 Which of the following is equivalent to $2^5 \cdot 3^2 \cdot 5$?

F 960

G 300

H 1440

J 288

5 What value is equivalent to $(3^4 \div 9) + 32 - (3 \cdot 10) + 6$?

Record your answer in the grid below.

					.		
+	0	0	0	0		0	0
-	1	1	1	1		1	1
	2	2	2	2		2	2
	3	3	3	3		3	3
	4	4	4	4		4	4
	5	5	5	5		5	5
	6	6	6	6		6	6
	7	7	7	7		7	7
	8	8	8	8		8	8
	9	9	9	9		9	9

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Day 4

1 Leon wrote an expression that is equivalent to $(30 + 6) \div 12$. Which expression could be the one Leon wrote?

A $36 \div 3 \cdot 4$

B $(3 \cdot 3 \cdot 4) \div 4 \cdot 3$

C $5 \cdot 6 + 2 \cdot 3 \div 3 \cdot 2 \cdot 2$

D $(3 \cdot 3 \cdot 2 \cdot 2) \div (3 \cdot 2 \cdot 2)$

2 Which is the prime factorization of 128?

F 2×64

G $2^5 \times 4$

H 2^7

J Not here

3 What value is equivalent to $4^3 - 5^2 \cdot (10 - 6) - 20$?

A -56

B -16

C 136

D -72

4 Which of the following is equivalent to $2^3 \cdot 3^3 \cdot 7$?

F 1512

G 378

H 210

J 2512

5 What value is equivalent to $(3^5 \div 3) + 32 - (3 \cdot 12) + 6$?

Record your answer in the grid below.

					.		
+	0	0	0	0		0	0
-	1	1	1	1		1	1
	2	2	2	2		2	2
	3	3	3	3		3	3
	4	4	4	4		4	4
	5	5	5	5		5	5
	6	6	6	6		6	6
	7	7	7	7		7	7
	8	8	8	8		8	8
	9	9	9	9		9	9

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Day 5

1 Simplify the following expression: $(12 + 48) \times 2 \div (13 + 7) - 2^5$

- A -20
- B -26
- C 26
- D Not here

2 Which is the prime factorization of 144?

- F $2^4 \times 3^2$
- G $2^2 \times 3^4$
- H $2^4 \times 3^2 \times 6^2 \times 12^2$
- J 12^2

3 What value is equivalent to $(63 + 17) - 4^2 + 6 \times 8$?

- A -8
- B 112
- C 560
- D 120

4 Which of the following is equivalent to $5^2 \cdot 3^3 \cdot 2$?

F 1350

G 180

H 450

J Not here

5 What value is equivalent to $5^3 \div 5 + 6 \times (87 - 82)$?

Record your answer in the grid below.

					.		
+	0	0	0	0		0	0
-	1	1	1	1		1	1
	2	2	2	2		2	2
	3	3	3	3		3	3
	4	4	4	4		4	4
	5	5	5	5		5	5
	6	6	6	6		6	6
	7	7	7	7		7	7
	8	8	8	8		8	8
	9	9	9	9		9	9