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Mathematics Project

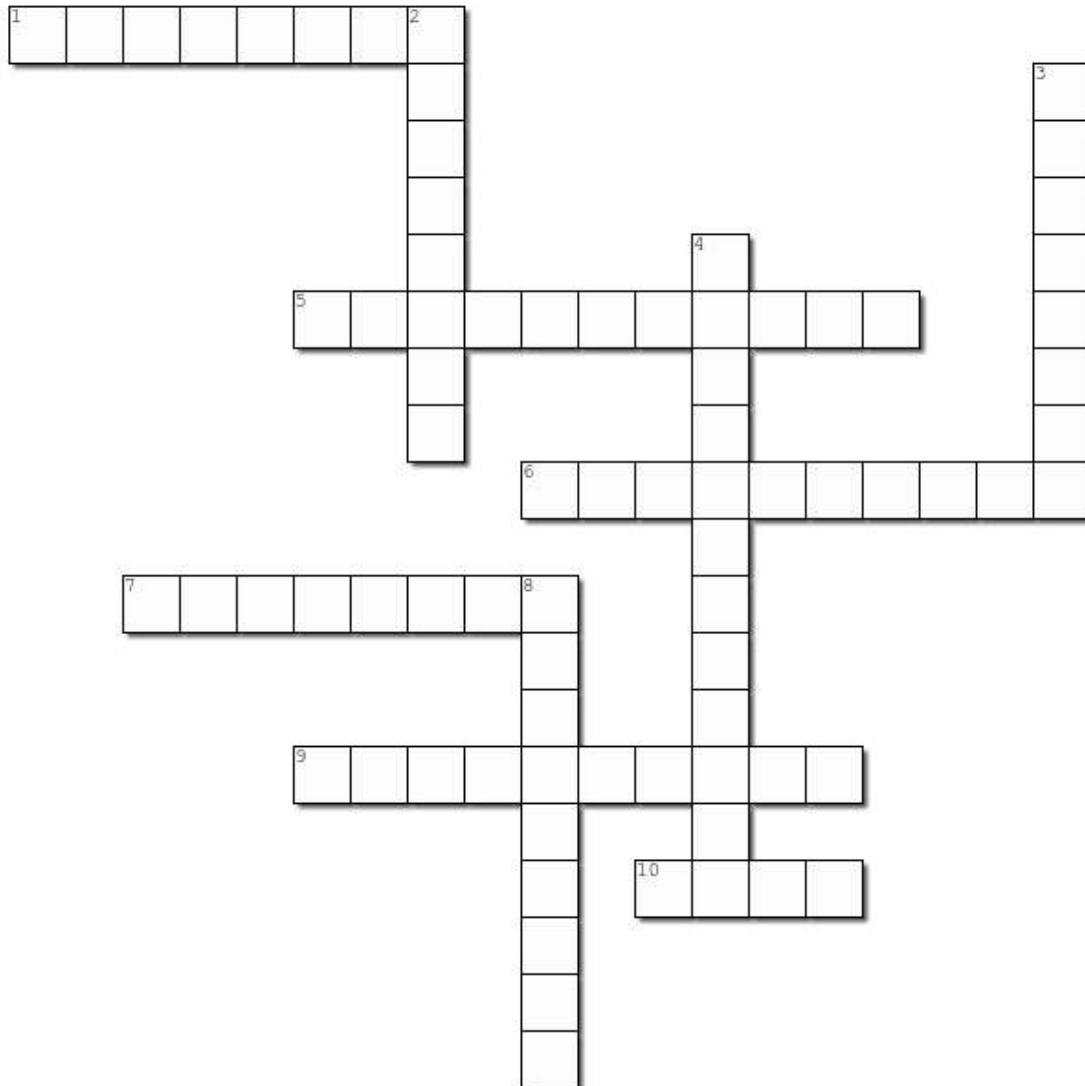
Total: 50

Date

INSTRUCTIONS AND INFORMATION

Read the following instructions carefully before answering the questions.

1. This paper consists of three sections.
 2. Section A – Theory (10)
Section B – Application (30)
Section C – Poster (10)
 3. ALL workbooks, textbooks, etc. can be used.
 4. Answer all the questions on the answer sheet.
 5. A calculator can be used unless otherwise indicated.
 6. Show all calculations, diagrams, and graphs that you used to get your answers.
 7. Only answers alone will not necessarily earn full marks.
 8. Write with a blue pen.
 9. All graphs must be drawn with a ruler and pencil.
 10. Shows ALL steps and operations.
 11. Write neatly and legibly.
 12. Think carefully before you write. Good luck!!!!
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SECTION A – THEORY**QUESTION 1** - Complete the Below crossword puzzle.**Algebraic terms**

Created using the Crossword Maker on TheTeachersCorner.net

Across

1. Stands for a particular number and is represented by a small letter.
5. A number which is multiplied by a variable.
6. Made up of one or more terms.
7. A term without variables.
9. An algebraic expression made up of terms which are added and/or subtracted.
10. Is divided by adding and subtracting.

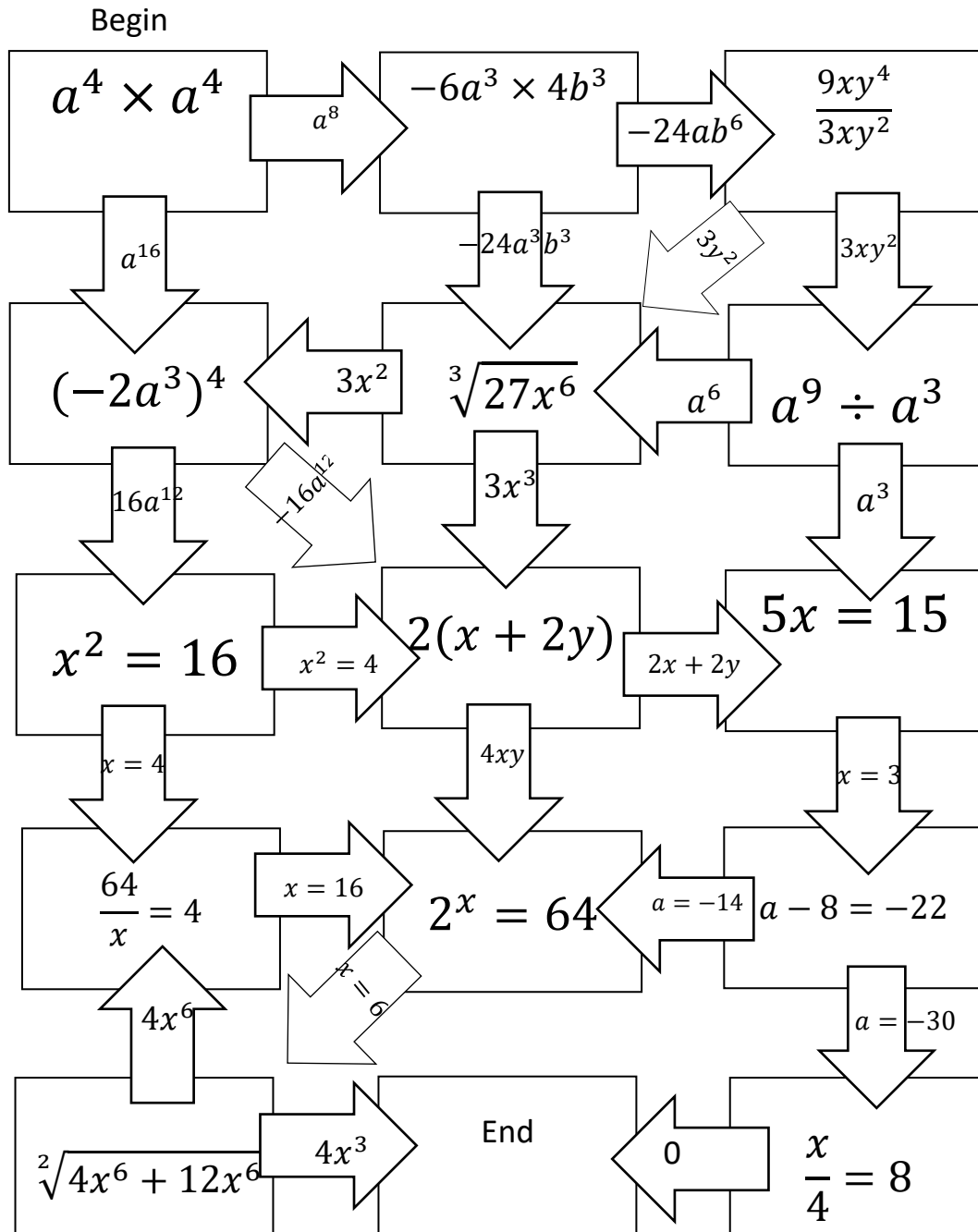
Down

2. Indicates the amount of times a number must times itself.
3. Has two expressions on either side of the equal sign which are equal in value.
4. When you can not calculate the brackets, you use this law.
8. Has three or more terms.

SECTION A TOTAL: /1x10

SECTION B – APPLICATION**QUESTION 2**

- 2.1 Complete the maze (maze) by solving the sum and following the arrow with the right answer. Color the arrows with the right answer. (8)



2.2 Simplify the following algebraic expressions.

2.2.1 $3x(4x + y)$ (1)

2.2.3 $12a(4a + b) - 6b(7a - 3b)$ (2)

2.2.4 $\frac{16x^4y^4 - 28x^2y^3 + 8x^2y}{4xy}$ (2)

2.3 Find the value of the following algebraic expressions by using substitution.

2.3.1 If $x = 4$ $y = 2$ (2)

$$\sqrt[2]{13x - 8y}$$

2.3.2 If $p = 3$ $q = -1$ (3)

$$-3pq + 8p - 4q^2$$

2.4 Solve the following equations.

2.4.1 $15 + a = 28$ (1)

2.4.2 $2f - 10 = 40$ (2)

2.4.4 $2^x = 32$ (1)

2.4.5 $\frac{2x+4}{3} - 1 = 7$ (4)

2.4.2 $\frac{8x^6}{2x^2} + x(4x) - 6x(4x + 2x^3)$ (4)

SECTION B TOTAL: /30

SECTION C – POSTER

QUESTION 3

You are going to design a poster to help other learners in the class understand Algebra better. Choose one of the following topics and design your poster on the topic:

1. Algebra expressions – Addition and subtraction
2. Algebra expressions - Multiplication.
3. Algebra expressions – Division.
4. Solve algebraic equations.

The poster must possess:

- The laws that the Algebra topic you have chosen uses.
- At least 3 examples (show and explain all steps)
- Terms and their definitions used in the Algebra topic you chose.

Category:

Criterion	Point
Laws are given and explained.	/2
Laws are well illustrated.	/2
Examples are given with steps.	/2
Terms well defined.	/2
Creativity.	/2
Total	/10

