

Welcome Back MYP Math 9!

	Assignment Effort Grade (Circle One)	Comments (What was interesting or challenging?)
Monday Date: <u>1/29</u> Topic: _____	0 1 2	I rested after FINALS :)
Tuesday Date: <u>1/30</u> Topic: _____	0 1 2	New Semester!
Wednesday Date: <u>1/31</u> Topic: <u>1A & 2A: Exponent Notation</u>	0 1 2	
Thursday Date: <u>2/1</u> Topic: <u>2B: Index Laws (Mult./Power/Division)</u>	0 1 2	
Friday Date: _____ Topic: _____	0 1 2	

ADVISORY BELL SCHEDULE (w/3 lunches)

Lunch A		
1st Hour	8:05-8:48	43 minutes
2nd Hour	8:53-9:36	43 minutes
Advisory	9:41-10:25	44 minutes
3rd Hour	10:30-11:13	43 minutes
Lunch A	11:18-11:48	30 minutes
4th Hour (Late)	11:53-12:36	43 minutes
5th Hour (Late)	12:41-1:24	43 minutes
6th Hour	1:29-2:12	43 minutes
7th Hour	2:17-3:00	43 minutes

Lunch B		
1st Hour	8:05-8:48	43 minutes
2nd Hour	8:53-9:36	43 minutes
Advisory	9:41-10:25	44 minutes
3rd Hour	10:30-11:13	43 minutes
4th Hour (Early)	11:18-12:01	43 minutes
Lunch B	12:06-12:36	30 minutes
5th Hour (Late)	12:41-1:24	43 minutes
6th Hour	1:29-2:12	43 minutes
7th Hour	2:17-3:00	43 minutes

Lunch C		
1st Hour	8:05-8:48	43 minutes
2nd Hour	8:53-9:36	43 minutes
Advisory	9:41-10:25	44 minutes
3rd Hour	10:30-11:13	43 minutes
4th Hour (Early)	11:18-12:01	43 minutes
5th Hour (Early)	12:06-12:49	43 minutes
Lunch C	12:54-1:24	30 minutes
6th Hour	1:29-2:12	43 minutes
7th Hour	2:17-3:00	43 minutes

Warm-up: Simplify using the properties we explored yesterday.

$$(2k^4)^2 = 4k^8$$

$$4b^1 \cdot 4b^3 = 16b^4$$

Product Property of Exponents

$$a^m \cdot a^n = a^{m+n} \text{ ADD}$$

Quotient Property of Exponents

$$\frac{a^m}{a^n} = a^{m-n} \text{ Subtract}$$

Power of a Power Property

$$(a^m)^n = a^{mn} \text{ multiply}$$

Class Plan:

1. Warm-up
2. Apply Laws of Indices
3. Examine the course paths for mathematics at SW

Apply Properties of Exponents

B

INDEX LAWS

Product Property of Exponents

$$a^m \cdot a^n = a^{m+n}$$

Quotient Property of Exponents

$$\frac{a^m}{a^n} = a^{m-n}$$

Power of a Power Property

$$(a^m)^n = a^{mn}$$

Apply Properties of Exponents

B

INDEX LAWS

5 in a Row!

- 1) Create a 5 X 5 board
- 2) Random #1 - #24 and **FREE SPACE!**

Challenge:
Work ahead!

X	23	11	12	5
22	2	16	6	13
21	10	FREE	15	14
9	7	20	3	24
8	17	18	19	4

Simplify.

$$1) 4^3 \cdot 4^4 = 4^7$$

Simplify.

$$2) 3^1 \cdot 3^3 \cdot 3^3 = 3^7 = \underline{\underline{2187}}$$

Simplify.

$$3) 3n^1n^4 = 3n^5$$

Simplify.

4) $3v \cdot 3v$

Simplify.

5) $4m^4 \cdot 2m^4$

Simplify.

6) v^2v^4

Simplify.

$$7) 3x^1y^4 \cdot x^3y^3 = 3x^4y^7$$

$$3x \times x \times x \times y \times y \times y \times y \times y \times y$$

Simplify.

$$8) 3x^4y^4 \cdot 2x^3y^3$$

$$6x^7y^7$$

≡

Simplify.

9) $(2^4)^3$

Simplify.

10) 2^4

Simplify.

$$\begin{aligned} 11) (3n)^3 &= (3n)(3n)(3n) \\ &= 27n^3 \end{aligned}$$

Simplify.

12) $(3x)^2$

Simplify.

13) $(x^3 y^3)^4$

Simplify.

14) $(4m^3n^2)^2$

Simplify.

$$15) \frac{4^4}{4^2} = 4^2$$

Simplify.

$$16) \frac{2^3}{2^4}$$

Simplify.

$$17) \frac{r^4}{r^3}$$

Simplify.

$$4 - 1 = 3$$

$$18) \frac{4n^4}{2n^1}$$

$$= 2n^3$$

$$\frac{\cancel{nnnn}}{\cancel{n}}$$

Simplify.

$$19) \frac{u^4 v^4}{4u^3 v^3}$$

Simplify.

$$20) \frac{m^4 n^2}{mn}$$

Simplify.

$$21) (2x^4)^2 \cdot x^3$$

$$4x^8 x^3 = 4x^{11}$$

Simplify.

$$22) ((n^4)^2 \cdot n^2)^3$$

Simplify.

$$23) \frac{(2^3)^3}{2 \cdot 2^2}$$

Simplify.

$$24) \frac{2^4 \cdot 2^3}{2^2}$$

$$2^2 \cdot 2^3$$

$$= \frac{2^7}{2^2} = 2^5$$

$$32$$

Exercise Solutions

1) 4^7

5) $8m^8$

9) 2^{12}

13) $x^{12}y^{12}$

17) r

21) $4x^{11}$

2) 3^7

6) v^6

10) 2^4

14) $16m^6n^4$

18) $2n^3$

22) n^{30}

3) $3n^5$

7) $3x^4y^7$

11) $27n^3$

15) 4^2

19) $\frac{uv}{4}$

23) 2^6

4) $9v^2$

8) $6x^7y^7$

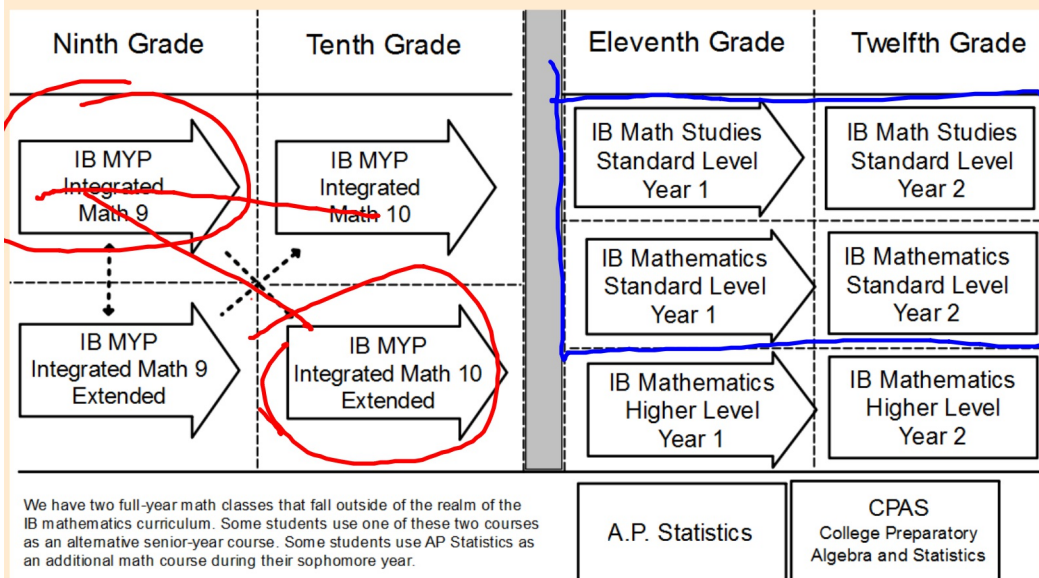
12) $9x^2$

16) $\frac{1}{2}$

20) m^3n

24) 2^5

Which path will you choose for 11th grade?



Directions: Quietly complete survey, turn in.
Your teacher(s) will give you feedback of which class **we** feel you will find the most success.

10th Grade Course Survey Name _____

1) What goals do you have for when you are finished with school? (After college or high school)

2) (i) Place an **X** next to the math class you plan to take as a 10th grader.

_____ MYP 10 Standard Level Math _____ MYP 10 Extended Level Math

(ii) List all the Honors **AND/OR** AP courses you plan to take as a 10th grader. (**For example:** AP U.S. History, Honors Chemistry, Honors English, others????)

3) Additional comments, questions, concerns??

Teacher Feedback..... I recommend that you take _____ as a 10th grader.

IB Mathematical Studies Standard Level Course

Topic 1 Numbers and algebra
Topic 2 Descriptive statistics
Topic 3 Logic, sets and probability
Topic 4 Statistical application
Topic 5 Geometry and trigonometry
Topic 6 Mathematical models
Topic 7 Introduction to differential calculus
Project An individual piece of work involving the collection of information or the generation of measurements, and subsequent the analysis and evaluation.

IB Mathematics Standard Level

Topic 1 Algebra
Topic 2 Functions and equations
Topic 3 Circular functions and trigonometry
Topic 4 Vectors
Topic 5 Statistics and probability
Topic 6 Calculus
Mathematical exploration Internal assessment in mathematics SL is an individual exploration. This is a piece of written work that involves investigating an area of mathematics.

At Southwest, we add ACT
test preparation

IB Mathematics Higher Level Course

Topic 1
Algebra

Topic 2
Functions and equations

Topic 3
Circular functions and trigonometry

Topic 4
Vectors

Topic 5
Statistics and probability

Topic 6
Calculus

Option syllabus content

Students must study one of the following options.

Topic 7
Statistics and probability

Topic 8
Sets, relations and groups

Topic 9
Calculus

Topic 10
Discrete mathematics

Mathematical exploration

A piece of individual written work that involves investigating an area of mathematics.