

Excel & Business Math Video/Class Project #12

Reducing Fractions, Prime Factors and Understanding & Calculating Ratios

Topics

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1) Example 1 From Video:

	A	B	C	D	E	F	G	H	I	J	K	L
1	Prime Numbers		Example 1:	Reduce: 16/26								
2	2											
3	3		Step 1	Find all Prime Factors for the Numerator and Denominator								
4	5											
5	7											
6	11		**Note: Start with 2, then try 3, then 5, etc...									
7	13		List Prime Factors	16		List Prime Factors	26				** Strike Through Font Formatting Keyboard = Ctrl + 5	
8	17		2	8		2	13					
9	19		2	4		13	1				<=<= When you get a 1, stop (1 is not prime)	
10	23		2	2								
11	29		2	1							<=<= When you get a 1, stop (1 is not prime)	
12	31											
13	37		Step 2	Write Fraction with Prime Factors in Numerator and Denominator								
14	41											
15	43		2*2*2*2									
16	47		2*13									
17	53											
18	59		Step 3	Cancel when a prime factor is in both the numerator and denominator								
19	61											
20	67		2*2*2*2			2*2*2						
21	71		2*13	=		13	=				8	
22	73										13	
23	79		Why is this important?									
24	83											
25	89		Because in Excel we don't want to get tricked by number format									
26	97											
27	101		16/26									
28	103		5/8									
29	107											
30	109											
31	113											
32	127		16/26									
33	131		8/13									
34	139											
35	149											
36	151		Prove that 5/8 is not equal to 8/13:									
37	157		5/8									
38	163		8/13									
39	167		Logical Formula:									
40	173											

2) Example 2 From Video:


	C	D	E	F	G
42	Example 2:	Reduce 42/154	** Strike Through Font Formatting Keyboard = Ctrl + 5		
43					
44	List Primes	42		List Primes	154
45	2	21		2	77
46	3	7		7	11
47	7	1		11	1
48					
49	Reduced:	3/11			
50	Reduced:	3/11			
51					


3) Example 3 From Video:

	C	D	E	F	G	H	I	J	K	L	M
54	Example 3:	Reducing Fractions to Verify that Number Formatting is Displaying the Correct Number						** Strike Through Font Formatting Keyboard = Ctrl + 5			
55											
56		Assignment	Possible Points	Your Score		Denominator =			Numerator =		
57		Test 1	100	80		Possible Points =	8		Earned Points =	7	
58		Test 2	100	75		P Factors	400		P Factors	350	
59		Test 3	100	100		2	200		2	175	
60		Test 4	100	95		2	100		5	35	
61		Total	400	350		2	50		5	7	
62						2	25		7	1	
63			Fractional Score	7/8		5	5				
64						5	1				
65			Meaning:	7 Earned Points / 8 Possible Points							

4) Example 4-6 From Video:

	A	B	C	D	E	F	G	H	I
1	Example 4:	Profitability Ratio = Profit / Revenue							
2									
3	Company Revenue	\$100,000.00		** Income into business					
4	Company Profit	\$15,000.00		** Amount Owners get to keep (also known as Net Income)					
5	Profit/Revenue	0.15	\$0.15 Profit / \$1 Revenue						
6									
7	Example 5:	Google (Alphabet) Financial Numbers							
8									
9	2015 Revenue	73,590,000,000							
10	2015 Profit	15,830,000,000							
11	Profit/Revenue	0.215110749	\$0.22 Profit / \$1 Revenue						
12									
13									
14	Example 6:	Catapillar Financial Numbers							
15									
16	2015 Revenue	47,010,000,000							
17	2015 Profit	2,510,000,000							
18	Profit/Revenue	0.053392895	\$0.05 Profit / \$1 Revenue						
19									





5) Business Terms used in Video:

- Revenue = Income into the business
- Expenses = The cost of running the business
- Loans = Debt = Liabilities = How much the Business Owes in Loans
- Profit = Net Income = Earnings = Total Revenues – Total Expenses = How much is left over for the owners after all the bills are paid

6) Example 6 - 7 From Video:

Second Example #6

	A	B	C	D	E	F	G	H
22	Example 6:	Homework or Screen Time?						
23								
24	Total Screen Time Last Week	45.5	** Screen Time = Phone, Computer, TV, Movies, Xbox...					
25	Total Hours Spent Doing Homework Last Week	8.5						
26	Screen Time Hours/Homework Hours	5.352941176	5.35 Hours Screen Time / 1 Hour spent on Homework					
27								
28								
29	Example 7:	Target in the Last Hour: Total Customers and Total Items purchased						
30								
31	Total Items Purchased in One Hour	2,010						
32	Total Customers in One Hour	250						
33	Items Purchased/ Customer	8.04	8 Items Purchased / 1 Customer					

7) Example 8 From Video:

	A	B	C
1	Assignment	Possible Points	Your Score
2	Test 1	100	80
3	Test 2	100	75
4	Test 3	100	100
5	Test 4	100	95
6	Total	400	350
7			
8		Fractional Score	350/400
9			
10		Meaning:	350 Earned Points / 400 Possible Points
11			
12	Example 8		

8) New Keyboards in Video

- Ctrl + 5 = Strike Through Font Formatting