TRSM TEST

GENERAL INFORMATION

1. SCORES:
each answer this is 1 point. Student passes when he gets 70% or more from the test

2. TEXT FORMATING IN THE TASK:
texts in the tasks should be a continuous text without spaces and tabs

3. TEXT FORMATING IN HINTS:
texts in hints should be aligned to left NOT CENTERED

INFORMATION FOR QUESTIONS:

1. Q#4 : improve text in the task: ->
In the driver's test, 6:4 is the ratio of students who failed to the students who passes the test. If 16 students passed the driver's test, how many students failes?

2. Q#4 and Q#3 should be connected together , this is the same type of question. Q#4 should be the question 4-2 from the link below:

http://mathematica.lossofgenerality.com/wp-content/uploads/2015/03/Solutions-to-Tutorials.pdf

Deidre will send more details in one or two days how exactly it should look like.

3. I need to add more right answers in some questions and one more qTrunc to make one more option of rounding

4. In one or two days, Deidre will **send** more examples of variations for some questions, because in some of them there is to less of them.

5. Before or after some answer box some text is required: example
$ 234
or
Sony Playstation : 12

for more details see text below

.TRSMEpsilon

Question #1: for large numbers please express them in the following way
70000 = 70 000
3860000 = 3 860 000

Hint:

Identify which variables are given and which is the unknown.

b:
Given percent increase/decrease:

$$\text{Final amount} = \text{original amount}\left(1 + \frac{\text{increase}}{100}\right)$$

$$\text{Final amount} = \text{original amount}\left(1 - \frac{\text{decrease}}{100}\right)$$

c:

$$\text{Percent increase/decrease} = \frac{\text{final} - \text{original}}{\text{original}} \times 100\%$$

d:
Break even means set profit = 0.

Please flush all the parts to the left.

Question #2:
Hint for part a)

A:
Expand and collect like terms.
Variables on one side = Number of on the other

B:
Use Method of Substitution or Method of Elimination.

C:
Use either cross-multiplication or find the common denominator of the two terms.

Variables on one side = Number on the other side.
Flush everything to the left.

Question 2a)

A)Solve for k:
4k−9(k−10)=5−7k

Answer: Incorrect

−42.5

We need to be able to accept two answers, as an improper fraction and its decimal equivalent.

In this case, the answer in Full Solution is -85/2 but when I entered -42.5 it says the answer is incorrect.

Question 2b)

B)Solve for j and c
1 j + 6 c = 53
−9 j −1 c = −53

Answer?

For the Answer, we need two answer boxes, one for each variable. It should look as follow:

Answer?
J = c =

As well, could we have no coefficient of 1?

Question 2c)

C)Solve for u:

$$\frac{4u}{2} = \frac{(1u-1)}{1}$$

- No denominator of 1
- The two denominators need to have different numbers
- The denominator should not be a factor of the numerator

Question: 3

3. The ratio of Sony Play Stations sold to BlackBerry tablets in a particular day is 8:5, at BestBuy. If 10 BlackBerry tablets were sold one day, how many Sony Play Stations were sold?

Answer?

Please align this sentence in appropriate format.

Ratio has to be expressed in the lowest terms.
e.g. 2:4 need to be expressed as 1:2
9:6 needs to be expressed as 3:2
I would prefer not to have a 1 in the ratio, if possible.

Could we change the wording of the first part of the question a little:
The ratio of Sony Play Stations sold to BlackBerry tablets in a particular day at BestBuy is 8:5.

Question: 4

4. In a road test, 6:4 is the ratio of Fail students to Pass students. If 16 Pass students, then how many Fail students?

Answer?

Please align this sentence in appropriate format.

Ratio has to be expressed in the lowest terms.
e.g. 2:4 need to be expressed as 1:2
9:6 needs to be expressed as 3:2
I would prefer not to have a 1 in the ratio, if possible.

During Skype session, I have rephrased the question.

Question: 5

5. At a certain store,the ratio of the number of Car stereo system sold to winter tires is 6:8. If stereo sells for $234 while the tires sells for $174 at this store and the combined revenue is $1330896, determine the total number of these car parts sold.

Please align this sentence in appropriate format.
for large numbers please express them in the following way
70000 = 70 000
3860000 = 3 860 000

Under the Hint: make the ratio and actual diagram smaller

If I entered a $ before the answer it will rendered the answer incorrect.
Could we put $ so students know they do not need to enter the $ sign?

Another Question 5:

The ratio 3:4 is the number of Xbox 360 home entertainment system sold to Nintendo Wii home entertainment system. Determine the total number of home entertainment systems sold, if Xbox 360 sells for $108 while the Nintendo Wii sells for $286 at this store and the combined revenue is $731064.

Could we rewrite the first part of the question?
The ratio of the number of Xbox 360 home entertainment systems sold to Nientendo Wii is 3:4.

If I entered a $ before the answer it will rendered the answer incorrect. Could we put $[ ] so students know they do not need to enter the $ sign?

Question: 6

6. On March 1 a motorcycle was purchased. Simple interest is used to calculate the amount of depreciation. Determine the amount of depreciation on the motorcycle for the remainder of the year, assuming that the annual rate of depreciation on this motorcycle is 23% , while 90 days have passed from January 1 to end of March.

Please align this sentence in appropriate format.

We are missing the original price of the motorcycle.

We need answers to be round up and down by 0.01 from the correct answer.
For example, had the motorcycle been $22 479, based on depreciation of 23% for 275 days, the correct answer is $13 040.9. But we will accept the following as correct answer as well:
$13 040.90
$13 040.91
$13 040.89

Could we also rewrite the question?
Motorcycle is known to depreciate in value by 23% calculated as simple interest per year. If the motorcycle was purchased on March 1, determine the amount depreciated by the end of the year. (Note: 90 days have passed from January 1 to March 31.)

Question:7

7. Kevin invested $50000 in corporate bonds for eight years. At the end of the investment period, the corporate bonds were worth $58000. Find the annual rate of compound interest earned on the corporate bonds. (Write your answer as a percent rounded to two decimal places.)

Please align this sentence in appropriate format.
Rewrite big numbers: $58000 = $58 000

If I put a % sign after the solution, I will have an incorrect answer. Could we put [ ] %.

In this question, the correct answer is 1.87%. The rounding is quite clear. However, the next question (see below) is a bit more tricky.

Another question 7:
Jack invested $40000 in corporate bonds for six years. At the end of the investment period, the corporate bonds were worth $44000. Find the annual rate of compound interest earned on the corporate bonds. (Write your answer as a percent rounded to two decimal places.)"

The answer given by the calculator in this case is 1.601186777

All the possible answers, round to two decimal places will be as follow:
1.6
1.60

Question: 8

8. How long did it take Spomenka's initial investment of $30000 in callable bonds to double in value, calculated as a compound interest at 9% per annum? Round your answer to two decimal places.

Please align this sentence in appropriate format.

Put the unit after the answer box: [ ] years

Acceptable answers specific to this question:
8.04
8.05

However, if the solution happens to be 8.2034757 then acceptable answers will be:
8.2
8.20

Question: 9

9. A sum of money invested for a eight–year period at 10% interest, compounded monthly. After the eight–year period, the final accumulated value of the investment is $300000. Determine the initial amount invested, round to two decimal places.

Please align this sentence in appropriate format.
We need to be able to accept two answers, as an full answer and round off answer.

If I entered a $ before the answer it will rendered the answer incorrect. Could we put $ [ ] so students know they do not need to enter the $ sign

Rather than using the phrase, "After the eight-year period" simply say. "After eight years, "

Rounding:
$276 944.13 (correct answer) Other acceptable answers: $276 944.12
$276 944.14

Another question 9:
~~After the ten-year period~~ After ten years, a sum of money invested at 10% interest, compounded monthly, has a final accumulated value of $400000. Round to two decimal places, the initial amount of investment."

Question:10

10.

Determine the cost of the locker fee per month, if the total amount charged in one month for three memberships and 5 lockers is $247 and the total charged for six memberships and 4 lockers is $374. Note that there are a monthly membership and an optional locker fee (for those who wish to have a designated locker).

Please align this sentence in appropriate format.

If I entered a $ before the answer it will rendered the answer incorrect. Could we put $ [ ] so students know they do not need to enter the $ sign

For questions that ask for both the membership and locker fee, make sure the answer part displays as such:
Membership: $ [ ]

Locker Fee: $ [ ]

Right now every question asks for locker fee. Could we have some questions that ask for membership fee?

I would like more variation to this question. Will send other possible questions.

Question: 11

11. Given that a represents the amount of time, in hours, a student studies for a particular test, and q represents the resulting test scores. Assume there is a linear relationship between the hours of studies and test scores, use the data provided in the chart to answer the following:

a hours of studies	q test scores
0	
1	11
4	38

Try Again | Hint | Solution

A:

Equation of line: y = mx + b

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

B:

Identify which variable is given. Solve for unknown.

C:

Think "Rate"

Please flush all the parts to the left.

Part a) the formula for the equation of lines has to be y = mx + b

In the answer portion, we need
y = [ ] x + [ ]

b) Need fillable table for students to put answers of their unknowns.

In general, the first column is always the independent variable, x, and the dependent variable is always y.

Another question 11:
Given that ~~r~~ x represents the amount of time, in hours, a student studies for a particular test, and ~~n~~ y represents the resulting test scores. Assume there is a linear relationship between the hours of studies and test scores, use the data provided in the chart to answer the following:

r hours of studies	n test scores
0	
1	12
6	52
	76

A) Find a formula for this relationship in the form ~~n = mr+b"~~ y=mx +b
Answer: y = [ ] x + [ ]

B)To get ~~84~~ 76 on the test, how many hours of studies required? Round your answer to two ~~deciaml~~ decimal places if necessary."

I changed it to 76 because there is no where in the question that we ask students to solve for the unknown but there is an empty spot for x when y is 76. Let's make the question more consistent.

We also need more variations for this questions as every question is asking for hours and test scores. Will be sending you some variations.

Question: 12
12. A university did a study on the relationship between student gender and exercise:

- 50% of all students surveyed do not exercise regularly
- 40% of those who do not exercise regularly were female
- 30% of all students surveyed were female.

12b & c) Possible answer solutions:
fractions in lowest terms: ½
decimal equivalent: 0.5 or 0.50 (always round to two decimal places with the exception of when the hundredths digit is a zero.)

12b & c) Add the condition at the end of the question:
Determine the probability that a student chosen exercise regularly. Express your answer as a fraction in lowest terms or as a decimal round to two decimal places.

Again, every question is about gender and exercise. We send you more variations.