

Get ready for grade 9. Sample questions.

Try to do our sample assessment so you know that you are ready to do assessment for grade 9 Math course. The sample questions provided cover some but not all the topics listed below. Students willing to take grade 9 MATH level should be able

- to add, subtract, multiply and divide numbers with positive and negative signs (integers).
- to add, subtract, multiply and divide fractions.
- to know order of operations. **B**rackets are done first, then **E**xponents, then **D**ivision and **M**ultiplication, and lastly **A**ddition or **S**ubtraction.
- to change percents to decimals. Solve questions that incorporate percent to find the sales tax or interest.
- to know how to use some formulas for area and volume.
- to know how to use Pythagorean theorem.
- to know that in a triangle, the three interior angles always add to 180° .

Sample questions. Write your answers in spaces provided.

1. Answer each of the following questions

$$-7 + (-4) = \underline{\hspace{2cm}}$$

$$8 + (-4) = \underline{\hspace{2cm}}$$

$$(-6) - (-21) = \underline{\hspace{2cm}}$$

$$(-20) - 13 = \underline{\hspace{2cm}}$$

$$(-4) \times (+4) = \underline{\hspace{2cm}}$$

$$(-4) \times (+1) = \underline{\hspace{2cm}}$$

$$(-55) \div (-5) = \underline{\hspace{2cm}}$$

$$18 \div (-6) = \underline{\hspace{2cm}}$$

2. Sharon withdraws \$158.76 from her bank account. Her new balance is \$259.69. What was Sharon's original bank balance?



Deposit: putting money into your account (adds to balance)
Withdrawal: Taking money out of your account (subtracts from balance)

3. a) Change the following improper fractions to mixed numbers

$$\frac{5}{4} =$$

$$\frac{8}{3} =$$

b) Change the following mixed numbers to improper fractions

$$4\frac{3}{8} =$$

$$2\frac{1}{3} =$$

c) add and subtract fractions

$$\frac{4}{7} + \frac{2}{7} =$$

$$\frac{5}{10} - \frac{47}{100} =$$

d) Multiply or divide the following. Reduce if necessary.

$$\left(\frac{1}{2}\right)\left(\frac{7}{10}\right) =$$

$$\frac{3}{5} \div \frac{9}{10} =$$

4. What fraction of the pizza has been eaten? How much pizza is left on the pan?



Eaten: _____, Left: _____



Eaten: _____, Left: _____

5. a) Write the following as fractions. Remember to reduce.

0.14

0.4739

b) Write fractions as decimals. Round to 3 decimal places, if necessary.

$$\frac{53}{1000}$$

$$\frac{5}{12}$$

6. To solve the following expression, which operation must you perform first?

$$8 + 12(7 - 5) \div 6$$

7. Change the following percents to decimals.

$$55\% = \underline{\hspace{2cm}}$$

$$2\% = \underline{\hspace{2cm}}$$

8. Change the following decimals to percents.

b) 0.23 $\underline{\hspace{2cm}}$

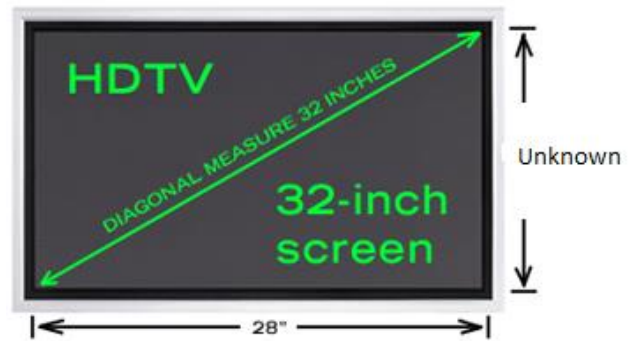
9. You want to purchase a new computer. The computer costs \$449 plus \$129 for software. What is the total cost of your purchase including 15% HST?



10. A student earned a grade of 80% on a math test that had 20 problems. How many problems on this test did the student answer correctly?

11. An LCD TV was put in a box with a length of 2 feet, a height of 3 feet, and a width of 0.5 foot. What is the volume of the box? (Formula $V_{\text{box}} = l \times w \times h$)

12. The diagonal of a TV screen is 32 inches. The screen is 28 inches wide. How high is the screen? (Hint: use formula $a^2 + b^2 = c^2$, a diagram is provided)



13. Find missing angle C.

