MATHCONCEPT 數學・思維 Learning Center

Quick Test 9 (Secondary 3 Standard)

- The test has to be completed in 30 minutes.
- The questions follow the latest Syllabuses for Secondary Schools Mathematics (Secondary 1 – 5) from the Hong Kong Curriculum Development Council.

Answers (Free detailed solutions can be obtained in our centers)

1) -2.9%   **2)** $-\dfrac{\sqrt{2}}{2}$ **3)** $\dfrac{1}{x^3\,y^2}$ **4)** $x = 3,\ y = -2$ **5)** $y > -7 \ \therefore \text{minimum} = -6$

6) $\angle CBE = 37°,\ \angle FBE = 53°$ **7)** 4 or -4   **8)** $36.87°$ **9)** 17   **10)** $\dfrac{4}{5}$

Number of correct questions	Comment
0~4	Below average
5~6	Unstable
7~8	Standard
9~10	Distinction

"Quick Test" is only a preliminary assessment. **MATHCONCEPT Diagnostic Test (MDT)** is designed to determine precisely the math level of the student and analyze their strength and weakness on different math topics. You are welcomed to make appointment for assessment in any of our MathConcept center.

MATHCONCEPT Diagnostic Test (MDT)

"MATHCONCEPT Diagnostic Test" consists of two parts and the whole test requires around 60 to 90 minutes to complete. The first part is a written test that designed to evaluate the student's strength and weakness with respect to grade-level material. The second part of the assessment is a series of oral questions that designed to evaluate student's understanding of key math concepts and skills. After the student has completed the assessment, our qualified MATHCONCEPT tutor will then explain thoroughly about the test result to the parents, generate a tailor-made learning plan and give out the curriculum materials that cater to the unique needs of each student.

Assessment Report

Learning Plan
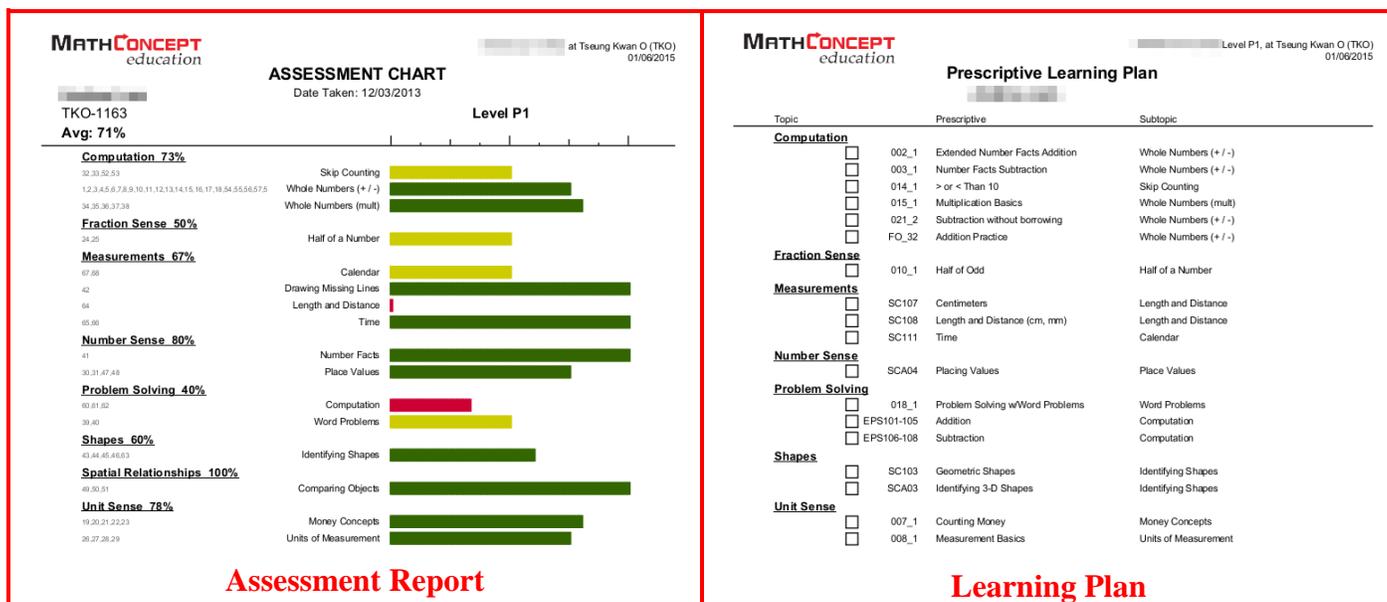
Quick Test 9

1) Dick estimates that there are 1500 people in school. However, the actual school population is 1545. Find the percentage error.

2) Simplify $\dfrac{1}{\sqrt{2}} + \sqrt{8} - 3\sqrt{2}$.

3) Simplify $(x^2 y^2)^{-2} \div (x y^2)^{-1}$ and express the answer with positive index.

4) Solve the system of equations $2x + 4y + 3 = 3x - 2y - 12 = 3x + 4y$.

5) If $\dfrac{y-3}{2} - 3 < \dfrac{2y-1}{3} - 3$, find the minimum integral value of y.

6) In the figure below, ABCD is a parallelogram. BF and BE are the heights of AD and CD respectively. If $\angle BCD = 53°$, find $\angle CBE$ and $\angle FBE$.
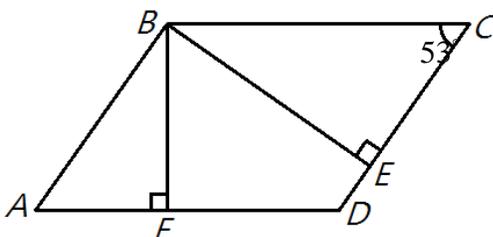
7) The line passing through A(–3, k) and B(2, –1) is perpendicular to the one passing through C(3, k) and D(0, 1). Find the possible values of k.

8) In the figure on the right, the side of the square ABCD is 8 cm. E and F are mid-points of CD and BC respectively. Find $\angle EAF$. (Correct the answer to the nearest hundredth.)
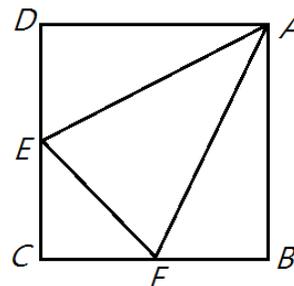
9) The following data are arranged in ascending order: 1, 6, 11, 15, a, a, 20, 21. If the median is 16, find a.

10) There are 2 red balls, 1 white ball and 3 black balls in a bag. Two balls are drawn from the bag without putting back. What is the probability that at least one of the two balls drawn is black?