

East Preston Islamic College

Major Assessment Task

Year 7

Term 1-2019

Name: _____

Problem Solving Skills

Ms Duoaa, Mr Raj and Mr Waseem

Due: Term 2 Week 2 Day 2 in Class

Introduction to problem solving!

Section One:

Please complete the following:

- a) Research on the internet for the different problem solving strategies that we can use in Mathematics. (Hint: there is more than 5 of them. There is also some information in your textbook.)
- b) List these strategies and describe the main processes that we can use when problem solving. It is not enough to write one sentence. Explain the process using your own words. For every process you should give an example.
- c) This section should be done on word (eg. It should be typed up on the computer.

Please complete section 1 before moving onto section

2.

Section Two:

Please complete the following questions and identify the type of strategy you used to solve the problems:

Questions for section TWO

1. Sahar opened a bank account when she started working at her local fish and chip shop. Over the four weeks of one month she made deposits of \$56.00, \$44.00, \$52.80 and \$39.20 and withdrawals of \$45.00, \$75.00, \$22.00 and \$50.00. If her bank account was opened with a \$10 deposit, how much was in her account at the end of the month? Was there a time that her account was negative?

2. Jane sold $\frac{2}{3}$ of the cupcakes she made. She has only 45 cupcakes left. How many cupcakes did she make?

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3. Find the number described by the following clues:

- It is bigger than 251
- It is divisible by 4
- The sum of its digits is 11
- It is smaller than 523
- Its last digit is 6.

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4. In a survey 24 people were asked: 'what is the maximum distance you walk to a train station?'

A person who says '800m' will walk up to 800m, but no more.

What is the longest distance (as a multiple of 100m) that at least $\frac{3}{4}$ of the people would walk to the train station?

The survey responses are:

100m	200m	250m	1km	$\frac{1}{2}$ km	$\frac{3}{4}$ km
600m	500m	450m	100m	1.2km	800m
1.5km	1.4km	200m	300m	1.2km	350m
900m	750m	300m	650m	320m	100m

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5. Miss Sawsan and Mr Waseem made a certain number of phone calls over a 3 month period. All of these calls were to the parents of their students. There is a charge of 22 cents for each call, and the monthly rental of the phone line is \$15.20. The bill for the 3 months comes to \$138. How many calls did they make in the 3 month period?

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Year 7 Mathematics – Problem Solving

	Well below standard (1)	Below standard (2)	Standard (3)	Above standard (4)	Well above standard (5)
Section one	Able to complete section one part A. Able to describe one process used in problem solving. Gives none or one of the processes used in problem solving.	Able to complete section one part A. Able to describe two of the processes used in problem solving. Gives a few examples of methods used in problem solving.	Able to complete section one part A. Able to provide more than 3 of the processes used in problem solving. Gives examples for some of the methods used in problem solving.	Able to complete section one part A. Able to describe most of the processes used in problem solving. Gives examples for most of the methods used in problem solving	Able to complete section one part A. Able to describe all of the processes used in problem solving. Gives examples for all methods of problem solving
Section two	Able to complete section two question 2.	Able to complete section two question 1 and 2 with minimal error. Provides one strategy used in problem solving.	Able to complete section two questions 1, 2 and 3 with minimal error and provide at least two strategy used in the problem solving task.	Able to complete section two question 1, 2, 3, 5 correctly and able to identify 3 of the strategies they used in the problem solving task.	Able to complete section two question 1, 2 and 3, 4 and 5 correctly and able to identify all the strategies used in the problem solving task.

TOTAL:

Comments: