Name: Block:

Problem Solving Quiz 1 - Practice/Example

This quiz is in two sections. For each section, you must select **_FOUR_** of the six available problems to complete. Please **_draw an asterix or circle the questions_** that you wish to be assessed! You are welcome to attempt all questions, but only 4 from each will be assessed.

For each selected question, do your best to reach a correct answer and **_provide justification for that answer_**. Your justification may include diagrams, mathematical work, written explanations, graphs, or other methods. You are encouraged to **_try to justify your answers in multiple ways._** You will be assessed on both your answer and your reasoning and justification.
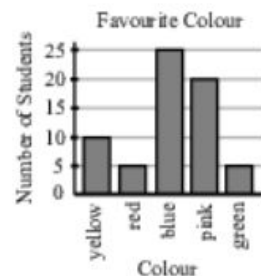
Section 1

1. The value of $\frac{1}{4} + \frac{3}{8}$ is

2. Kayla went to the fair with \$100. She spent $\frac{1}{4}$ of her \$100 on rides and $\frac{1}{10}$ of her \$100 on food. How much money did she spend?

3. Students were surveyed about their favourite colour and the results are displayed in the graph shown. What is the ratio of the number of students who chose pink to the number of students who chose blue?

    (A) $4 : 5$ (B) $3 : 5$ (C) $1 : 5$

    (D) $2 : 5$ (E) $5 : 3$

Favourite Colour

4. The heights of five students at Gleeson Middle School are shown in the graph. The range of the heights is closest to

(A) 75 cm   (B) 0 cm   (C) 25 cm

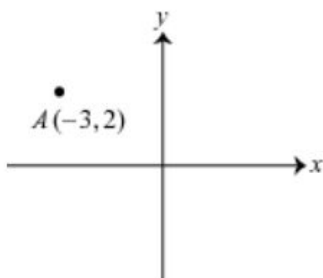(D) 100 cm   (E) 50 cm

Heights of Students
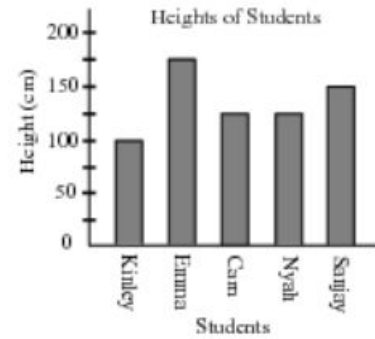
5. The value of $10^2 + 10 + 1$ is

6. 44×22 is equal to

(A) 88×2 (B) 88×11 (C) 88×20 (D) 88×44 (E) 88×40

Section 2

7. A translation moves point $A(-3, 2)$ to the right 5 units and up 3 units. This translation is done a total of 6 times. After these translations, the point is at ~(x, y). What is the value of $x + y$?

8. A parking lot has 25% more cars than trucks. The ratio of cars to trucks is
   (A) $4 : 3$ (B) $4 : 1$ (C) $9 : 5$ (D) $5 : 4$ (E) $3 : 1$

9. In the diagram, w, x, y, and z represent numbers in the intervals indicated. Which fraction represents the largest value?

   (A) $\dfrac{x}{w}$ (B) $\dfrac{y}{x}$ (C) $\dfrac{y}{w}$

   (D) $\dfrac{z}{x}$ (E) $\dfrac{z}{w}$
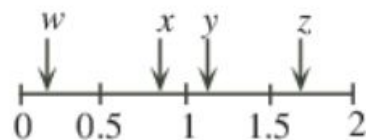
10. A square has perimeter 24. A rectangle has the same area as the square. If the width of the rectangle is 4, what is the perimeter of the rectangle?

11. Vanessa set a school record for most points in a single basketball game when her team scored 48 points. The six other players on her team averaged 3.5 points each. How many points did Vanessa score to set her school record?

12. Gina plays 5 games as a hockey goalie. The table shows the number of shots on her net and her saves for each game. What percentage of the total shots did she save?

Game	Shots	Saves
1	10	7
2	13	9
3	7	6
4	11	9
5	24	21

Answers:
1) ⅝
2) 35
3) 4:5
4) 75
5) 111
6) 88*11
7) 47
8) 5:4
9) z/w
10) 26
11) 27
12) 80%