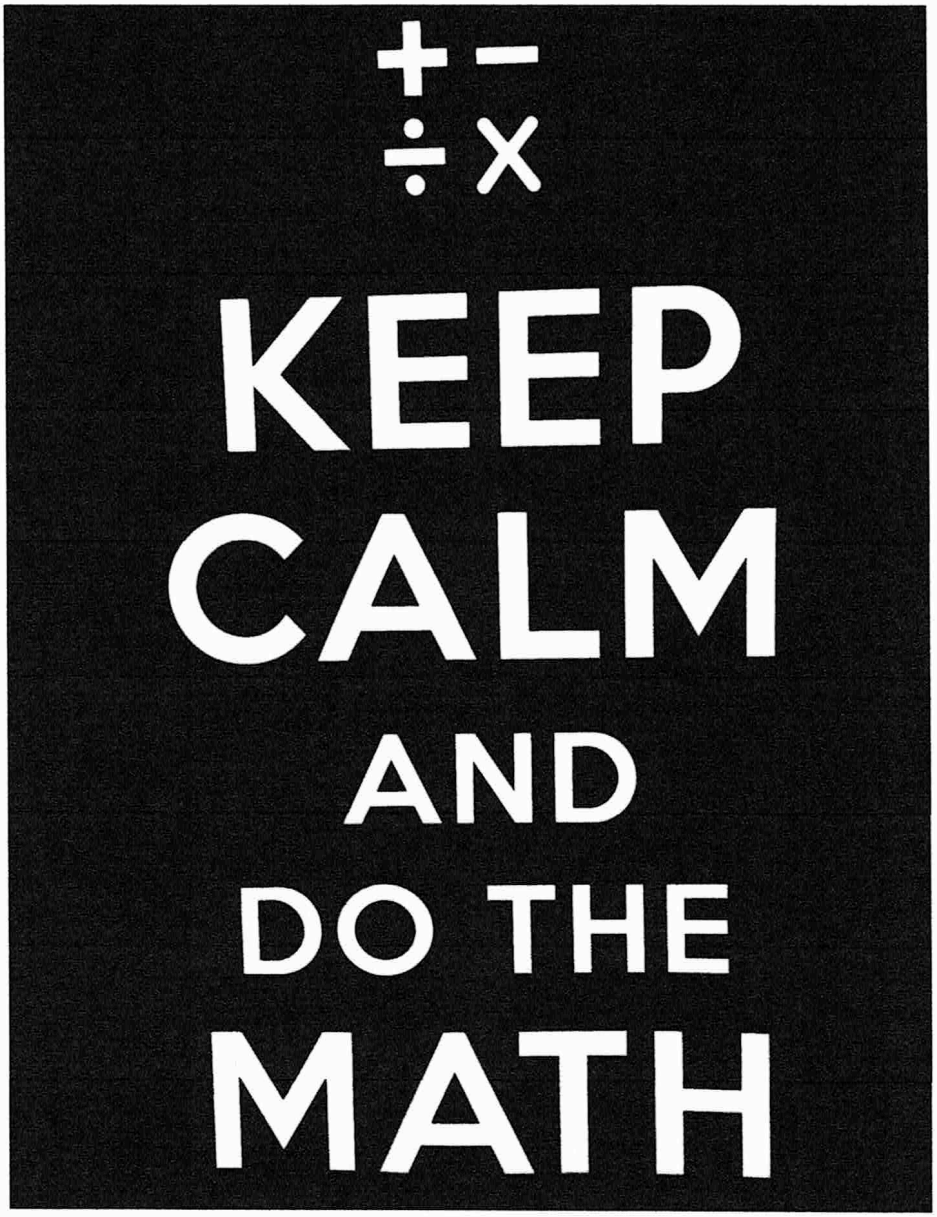
NOMBRE: _____

P.A.T Prep

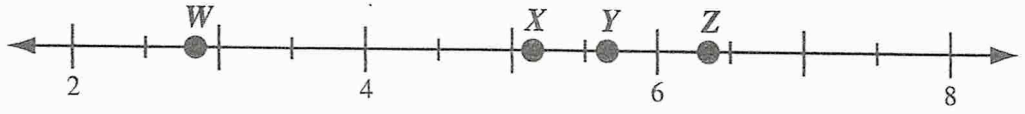
Perfect and Non-Perfect Squares
Square Roots – Approx. Square Roots



St. Brendan School

Mr. Martínez

Use the following information to answer numerical-response question 6.



Numerical Response

6. Match each point on the number line above to the corresponding number in the table below.

Code	Number
1	$\sqrt{37}$
2	$\sqrt{8}$
3	$\sqrt{22}$
4	$\sqrt{41}$
5	$\sqrt{6}$
6	$\sqrt{50}$
7	$\sqrt{27}$
8	$\sqrt{32}$

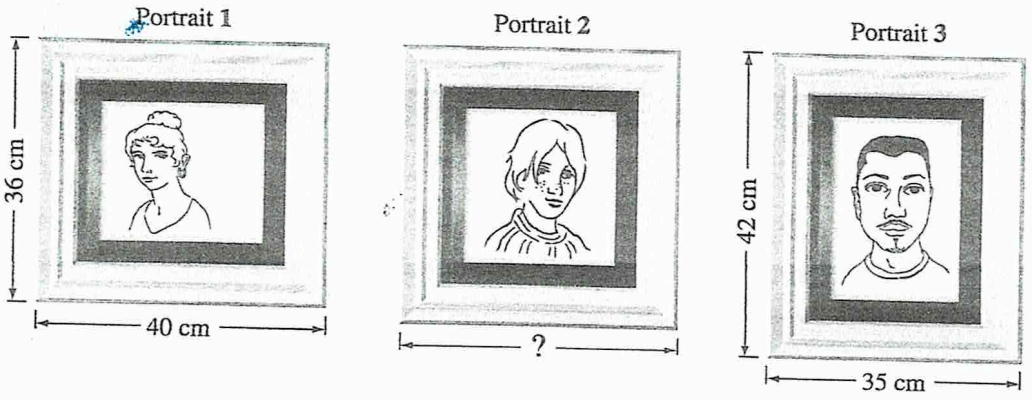
a little above 6
a little below 9
a bit below 5 (4.7)
closer to 6 than 7 → 4
2. something
very close to 7
very close to 5 but a bit less than 6

Code:
Point: _____ *W* _____ *X* _____ *Y* _____ *Z*

(Record all **four digits** of your answer in the numerical-response section on the answer sheet.)

Use the following information to answer numerical-response question 6.

Pat arranges three portraits from smallest to largest based on area. Portrait 2 is square, and its side length, measured in centimetres, is a whole number.



Numerical Response

6. The side length of portrait 2 is _____ cm.

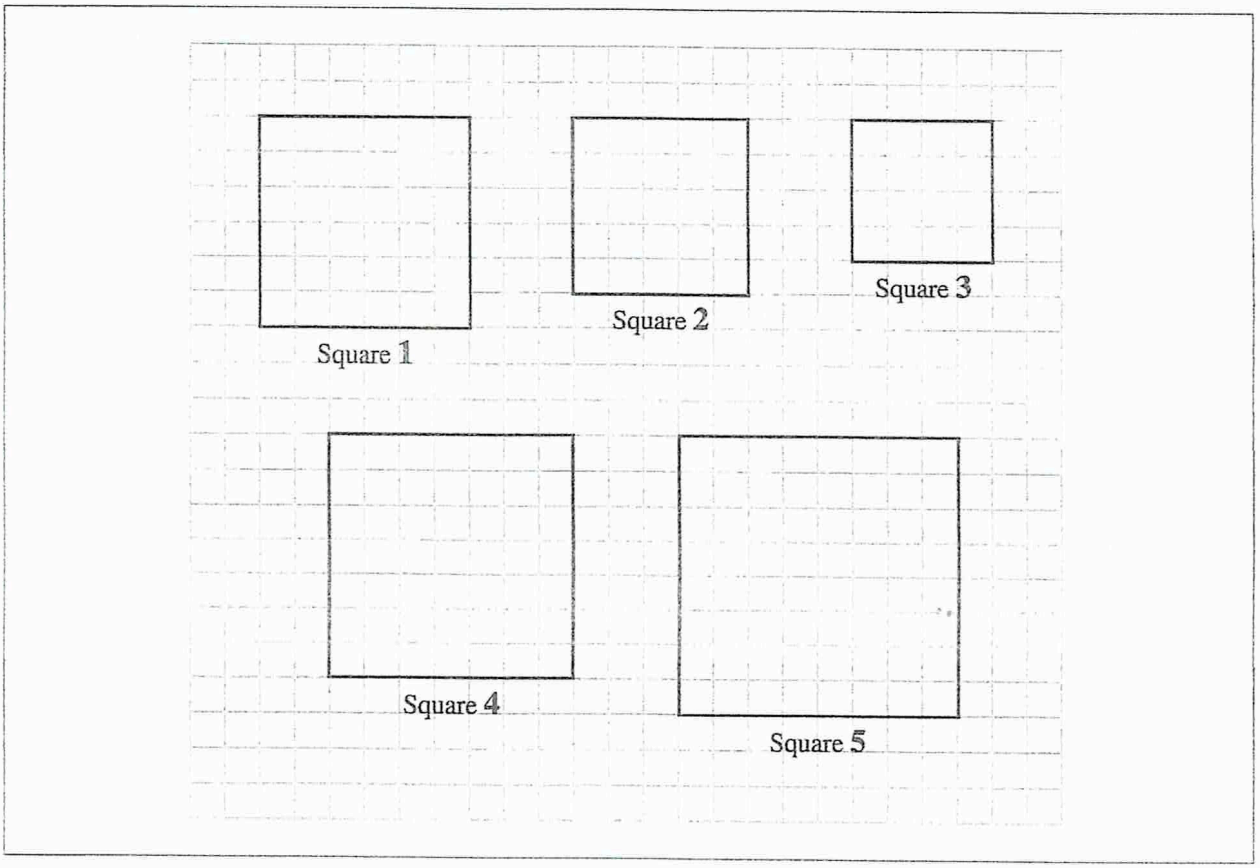
(Record your answer in the numerical-response section on the answer sheet.)

STRAND: NUMBER

S.O. #6

COMPLEXITY: LOW

Use the following information to answer numerical-response question 10.



Numerical Response

10. Which two squares shown above represent the **best** benchmarks for estimating the value of $\sqrt{43}$?

Answer: Square _____ and Square _____

(Record **both digits** of your answer **in any order** in the numerical-response section on the answer sheet.)

Numerical Response

10. The number of perfect squares that are whole numbers between 2 and 20 is _____.

(Record your answer in the numerical-response section on the answer sheet.)

22. In estimating $\sqrt{70}$, which two perfect square numbers provide the **best** two benchmarks to estimate your answer?

A. 49 and 64

B. 64 and 100

C. 49 and 81

D. 64 and 81

The letters p and q in the expression $\sqrt{\frac{p+q}{2}}$ represent consecutive perfect square numbers.

3. Which of the following number lines **best** represents the value of $\sqrt{\frac{p+q}{2}}$?

A.


B.


C.


D.


Use the following information to answer question 1.

$\sqrt{51}$ $\sqrt{55}$ $\sqrt{61}$ $\sqrt{66}$ $\sqrt{71}$ $\sqrt{77}$ $\sqrt{81}$ $\sqrt{88}$

1. How many of the square roots shown above have a value that is between 7.8 and 8.8?

A. 2
B. 3
C. 4
D. 5

The square roots of two rational numbers are represented on the number line shown below.

5. If Q is located between points P and R on the number line above, then which of the following square roots could **not** represent Q?

A. $\sqrt{\frac{324}{81}}$

B. $\sqrt{\frac{256}{9}}$

C. $\sqrt{\frac{225}{64}}$

D. $\sqrt{\frac{169}{4}}$