# HDI REACT JSS PAST QUESTIONS 

## VERBAL REASONING

## Select the best word to complete each analogy.

## Example:

Complex : simple :: extraordinary : $\qquad$
A. Average
B. Fancy
C. Worthy

1. Frontier : Border :: Interior : $\qquad$
A. Coast
B. Heartland
C. Neighbour
2. Garment : Alteration :: House : $\qquad$
A. Construction
B. Demolition
C. Remodeling
3. Lake : Reservoir :: River : $\qquad$
A. Canal
B. Rapids
C. Waterfall

## Circle the word that is spelled correctly in each group of words.

4. 

A. Somotogenic
B. Somatogenic
C. Somatogynic
5.
A.
Chronemeter
B. Cronometer
C. Chronometer

## Underline the best word to complete each sentence.

6. Speakers praised his (bibliophobia, eulogy, philanthropy) in donating the new library wing.
7. The boy's (kleptomania, bibliomania, phonophobia) was discovered when they found the missing items in his locker.
8. His stepdaughter's increasing (apathy, antipathy, sympathy) towards him was reflected in her rude remarks.
9. A true democracy is a form of (anarchy, polyarchy, polygamy).

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In the following, you will be given a list of three "nonsense" words and their English word meanings. The question that follow will ask you to reverse the process and translate an English word into the artificial "nonsense" word.
17. lelibroon means yellow hat plekafroti means flower garden frotimix means garden salad

Which word could mean "yellow flower"?
A. lelifroti
B. Ielipleka
C. plekabroon
D. frotibroon
10. DIRECTIONS: Use the clues given to answer the questions.

Nneka, Nkiru, Uchechi, and Obiageri are women who love their work (dress designer, florist, gardener, and symphony conductor). Read the clues to find each woman's occupation.

1. Nneka is violently allergic to most plants.
2. Nkiru and the florist are roommates.
3. Nkiru likes only highlife music.
4. The gardener, the dress designer, and Obiageri are strangers.

| Name | Occupation |
| :---: | :---: |
| Nneka |  |
| Nkiru |  |
| Uchechi |  |
| Obiageri |  |

Select any letter in front of the figure that contains the pattern shown on each question. The pattern must be in the same position but may have extra lines.
1.


Pattern
a.

b.

c.

d.


Select the figure(s) that can be formed by joining the three shapes on the left. The shapes may be moved in any direction. Select all that apply.
2.
a.


c.

b.

d.


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## Which answer can replace the question mark? Circle the correct answer.

3. 


a.

b.

C.

d.


## QUANTITATIVE REASONING

1. What is $x$ ?


Answer $\qquad$

For question 2, special operations are defined by:

$$
a \Omega b=a^{2}+b^{2} \quad a \Psi b=(a+b) / 2
$$

2. For what whole number value of $k$ is the equation true?
$(k \Omega k) \Psi(3 \Omega 3)=45$
Answer
3. The product of two numbers is 72. If $\boldsymbol{A}$ is the largest possible sum of these two numbers and $\boldsymbol{B}$ is the smallest possible sum of these two numbers, then what is $A-B$ ?

## Answer

4. The JSS2 students at Heritage Academy are divided into two classrooms. One of the classrooms has 13 boys and 18 girls. In the other classroom the ratio of boys to girls is 4 to 3 . If Heritage Academy has equal number of JSS2 boys and girls, how many students are in JSS2?

Answer $\qquad$

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5. In the diagram, $n / p=5 / 4$. The ratio $\mathrm{a} / \mathrm{b}$ equals what simplified fraction?


Answer
6. Ikenna and Anthony begin hiking at the same time, but at different elevations. Ikenna starts at an elevation of 960 meters and hikes down at a rate of 50 meters per minute. Anthony starts at zero elevation and hikes up at a constant rate. It takes 12 minutes for Ikenna and Anthony to be at the same elevation. What is the rate, in meters per minute, at which Anthony is hiking up?

## Answer

$\qquad$
7. Every time Chijioke and Amaka have a child, there is an equal probability of it being a boy or a girl. If Chijioke and Amaka have 4 children, what is the probability that they have an equal number of daughters and sons? Give answer as a simplified fraction.
8. A toy store owner receives a shipment of basketballs. On Monday he sells $1 / 7$ of the balls. On Tuesday he sells $1 / 6$ of the remaining balls. On Wednesday he sells $1 / 5$ of the remaining balls, leaving 20 balls still unsold. How many basketballs were there in the original shipment?

## Answer

9. How many of the smaller boxes can fit inside the larger box?


## Answer

10. Sixty percent of the campers at Camp Regina are boys. Thirty percent of these boys are 13 years old. What percentage of the campers at Camp Regina are not 13-year old boys?

## Answer

11. At Camp Regina, girls and boys pick oranges on a Tuesday morning. The mean weight of oranges picked is 12 kg for the girls, 18 kg for the boys, and 14 kg for all the campers (girls and boys combined). If 20 girls picked oranges, how many boys picked oranges?

Answer

