ROYAL BRITISH INTERNATIONAL SCHOOLS

ENTRANCE EXAM - MATH

NAME: ..... CLASS: 9

Answer **all** questions.

Question 1:-

Divide:

i. $10x + 14y$ By 2

ii. $ab + a^2b^2$ By ab

iii. $x^3 - 4yx^2 + xz$ By x

iv. $24qr + 12q^2r^3$ By $4qr$

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v. $25x^5y^4z^7 - 50x^3y^8z^2$ By $25x^2y^2z^2$

Question 2:-

Simplify the following using factorization:

i. $\frac{6x - 6y}{6x + 6y}$

ii. $\frac{24a^2 + 12a}{6a}$

iii. $\frac{r^2 + 13r + 36}{r + 4}$

iv. $\frac{z^2 + 33z + 200}{z^2 + 28z + 75}$

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v. $\frac{25x^2+64y^2}{20x-32y}$

Question 3:-

Solve the following equations to find the value of variables:

i. $8x = 64$

ii. $\frac{1}{x} - \frac{1}{7} = \frac{2}{9}$

iii. $3y + 4 = 5(y-2)$

iv. $\frac{4z}{6-2z} = -2$

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v. $\frac{r+1}{3} + \frac{x-3}{2} = \frac{1}{6}$

Question 4:-

A) The sum of four consecutive numbers is equal to 226. Find the numbers.

B) The sum of three consecutive even integers is equal to 102. Find the numbers.

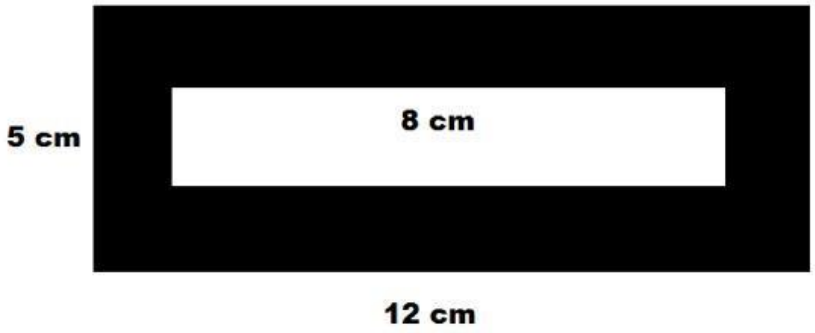
C) When 23 is subtracted from 6 times a certain number, the result is equal to 27. Find the number.

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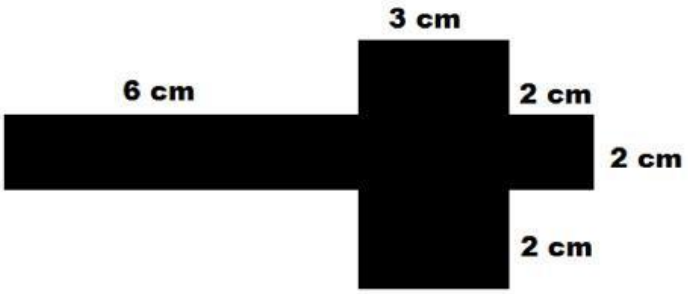
Question 5:-

Find the area of the shaded region in the given figures:

i.



ii.



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