Unit1   Real Numbers

Sr. No.	Questions	A	B	C	D
1	$\sqrt{7}$ is:	integer	rational number	irrational number✓	natural number
2	π and e are:	natural numbers	integers	rational numbers	irrational numbers✓
3	If n is not a perfect square, then $\sqrt{n}$ is:	rational number	natural number	integer	irrational number✓
4	$\sqrt{5} + 5$ is:	whole number	integer	rational number	irrational number✓
5	For all $x \in R$, $x = x$ is called:	reflexive property✓	transitive number	symmetric property	trichotomy property
6	Let $a, b, c \in R$, then $a > b$ and $b > c \Rightarrow a > c$ is called ___ property:	trichotomy	transitive✓	additive	multiplicative
7	$2^x \times 8^x = 64$ then $x =$	$\frac{3}{2}$ ✓	$\frac{3}{4}$	$\frac{5}{6}$	$\frac{2}{3}$
8	Let $a, b, c \in R$, then $a = b$ and $b = a$ is called _____ property:	reflexive	symmetric✓	transitive	additive
9	$\sqrt{75} + \sqrt{27} =$_____	$\sqrt{102}$	$9\sqrt{3}$	$5\sqrt{3}$	$8\sqrt{3}$✓
10	The product of $(3 + \sqrt{5})(3 - \sqrt{5})$ is:	prime number	odd number	irrational number	rational number✓

Solution of MCQs

1	$\sqrt{7}$ is irrational since it cannot be written as $\frac{p}{q}$.
2	π and e are famous examples of irrational numbers.
3	$\sqrt{n}$ is irrational when n is not a perfect square.
4	Rational + Irrational = Irrational $\Rightarrow \sqrt{5} + 5$ is irrational.
5	$x = x$ for all real x is the **reflexive** property.
6	$a > b$ and $b > c \Rightarrow a > c$ is **transitive** property.
7	$$2^x \times 8^x = 64$$ $$2^x \times (2^3)^x = 64$$ $$2^x \times 2^{3x} = 64$$ $$2^{x+3x} = 2^6$$ $$\Rightarrow x + 3x = 6$$ $$4x = 6$$ $$x = \frac{6}{4}$$ $$x = \frac{3}{2}$$
8	If $a = b \Rightarrow b = a$ is called is **symmetric** property.

Prepared By: M. Tayyab, SSE(Math) Govt Christian High School, Daska.   Mobile: 03338114798

Website: https://hira-science-academy.github.io   Page 1 of 2

9	$\sqrt{75} + \sqrt{27} = ?$ $\sqrt{75} + \sqrt{27} = \sqrt{25 \cdot 3} + \sqrt{9 \cdot 3}$ $= 5\sqrt{3} + 3\sqrt{3}$ $= \sqrt{3}\,(5 + 3)$ $= 8\sqrt{3}$
10	$\left(3 + \sqrt{5}\right)\left(3 - \sqrt{5}\right) = (3)^2 - \left(\sqrt{5}\right)^2$ $= 9 - 5 = 4$ is rational number.

Muhammad Tayyab (GHS Christian Daska)