Basic Question Practice Set 1

Basics Questions JEE Main Crash Course

- 1. Find the integral solution of the inequality $5x 1 < (x + 1)^2 < 7x 3$.

(1) 2

- (3) 4 hongo /// mathongo /// mathongo /// (4) 5 ongo /// mathongo /// mathongo /// mathongo ///
- **2.** $(x-2)^4(x-3)^3(x-4)^2(1-x) \le 0$
 - (1) (1, 3) go /// mathongo /// mathongo /// (2) $(-\infty, 1) \cup (3, \infty)$ thongo /// mathongo /// mathongo ///

(3) $(-\infty, 1] \cup [3, \infty)$

- 3. Complete solution set of inequalities $1 \le \frac{x+1}{2x-1} < 2$ is wathongo wathongo wathongo wathongo wathongo wathongo wathough mathongo wathongo wathong
 - (1) (1,2)

(2) [1,2)

(3) (1,2]

(1) 4

(3) 5

- **4.** The negative integral value of x satisfying $\frac{1}{x^2} \frac{1}{x} \le \frac{2}{x+2}$ is
- (4) [1,2] mathonge mathonge mathonge mathon
- 5. The number of positive integral solutions of $\frac{x^2(3x-4)^3(x-2)^4}{(x-5)^5(2x-7)^6} \le 0$ is ongo // mathongo // mathongo // mathongo //

 - (3) 2 hongo /// mathongo /// mathongo /// (4) 11 hongo /// mathongo /// mathongo /// mathongo ///

72) 13 hongo ///. mathongo ///. mathongo ///. mathongo

- **6.** The value of $7\log\left(\frac{16}{15}\right) + 5\log\left(\frac{25}{24}\right) + 3\log\left(\frac{81}{80}\right)$ is equal to
 - $(1) \log 2$
- 7. Solve $25^{\log_{10}x} = 5 + 4x^{\log_{10}5}$.

(1) 5

- (2) 100
- (3) 20 ongo /// mathongo /// mathongo ///
- (4) 10 ngo /// mathongo /// mathongo /// matho
- **8.** If $a = \log_{24} 12$, $b = \log_{36} 24$, $c = \log_{48} 36$ then abc + 1 equals
 - (1) 2acongo /// mathongo /// mathongo
- (2) 2bc ngo /// mathongo /// mathongo /// matho

(3) 2ab

- (4) None of these
- **9.** The solution set of the equation $\log_x 2 \log_{2x} 2 = \log_{4x} 2$ is
 - (1) $\left\{2^{-\sqrt{2}}, 2^{+\sqrt{2}}\right\}$

- (2) $\left\{\frac{1}{2}, 2\right\}$
- (3) $\left\{\frac{1}{4}, 2^2\right\}$ /// mathongo /// mathongo ///
- (4) None of these mathongo // mathongo // matho
- 10. The number of real solutions of the equation $\log_{10} (7x-9)^2 + \log_{10} (3x-4)^2 = 2$ is
 - (1) dihongo ///. mathongo ///. mathongo ///.
 - (2) 12 tongo /// mathongo /// mathongo /// matho

(3) 3

(4) 4