

Math 2303 – Diagnostic Test – Help Sheet

Take this practice test in 50 minutes. Then check the answers and get tips on practicing more problems like the ones you missed on your instructor's website.

Part I.: Operations with fractions

1. $\frac{5}{4} + \frac{3}{7}$

2. $4\frac{1}{3} - 1\frac{3}{5}$

3. $\frac{5}{12} \cdot \frac{2}{7}$

4. $2\frac{2}{5} \div 1\frac{5}{7}$

5. $\frac{1}{3} \left(\frac{3}{5} - \frac{1}{7} \right)$

Part II: Operation with decimals

6. $1.962 + 11. + 0.1162$

7. $8 - 3.378$

8. 6.05×13.5

9. Find the quotient to three decimal places: $35.01 \div 2.5$

10. $10.75(19.5 - 2.3)$

Part III: Operations with integers

11. $-7 - (-3)$

12. $35 + (-40)$

13. -19×3

14. $-8 \div (-2)$

15. $\frac{5-10}{-4-5}$

Part IV: Comparing Numbers

For questions 16 – 19, insert one of these symbols to make each statement true:

$<, \leq, >, \geq$.

16. -23 _____ -24

17. 3.6 _____ $3\frac{2}{3}$

18. $\sqrt{24}$ _____ 5

19. $\frac{8}{7}$ _____ 1

20. Classify each of these as True or False:

a. $\frac{1}{10} > \frac{1}{11}$

b. $\frac{16}{9} \leq 2.2$

c. $-1 > 0$

d. $0.0777 \leq 0.108$

Exponents

Simply each of these. Leave no negative exponents in your answers.

21. 6^3

22. -7^2

23. $9x^0$

24. $x^5 \cdot x^4$

25. $\frac{x^5}{x^{13}}$