

**Borough of Manhattan Community College**  
**Department of Mathematics**  
**MAT 008 Final Examination Practice**  
Form A

The actual final exam will have 24 questions: 20 multiple choices (4 points each) and 4 short answers (5 points each). Please do not assume that the content or difficulty level of these practice questions are exactly the same as the actual examination.

1. You buy two PCs at \$570 each. You have to make a \$96 down payment, and for the next year, you agree to pay the remainder in equal installments. How much will the monthly payments be?

- a. \$39.50    b. \$55.50    c. \$ 87.00    d. \$47.50    e. \$95.00

2. Compute:  $(-3)^2 + 8 \times 2^2 =$

- a. -4            b. -23            c. 41            d. 23

3. Perform the operation:  $8\frac{1}{3} - 4\frac{1}{2}$

- a.  $4\frac{1}{5}$             b.  $4\frac{1}{6}$             c.  $\frac{5}{6}$             d.  $3\frac{5}{6}$

4. Add:  $2\frac{4}{7} + \frac{9}{14}$

- a.  $3\frac{1}{2}$             b.  $2\frac{14}{17}$             c.  $3\frac{3}{14}$             d.  $3\frac{17}{14}$

5.  $21 \div 1\frac{1}{3} =$

- a.  $\frac{2}{9}$             b.  $1\frac{3}{7}$             c.  $1\frac{7}{3}$             d.  $7\frac{1}{3}$             e.  $15\frac{3}{4}$

6. Convert  $\frac{7}{9}$  to a decimal, rounded to the nearest tenth:

- a. 8.8            b. 0.88            c. 0.9            d. 0.8            e. 0.0888

7. Candidate A got  $\frac{2}{5}$  of the vote. Candidate B got  $\frac{1}{4}$  of the vote. If Candidate C got the rest of the votes, what fraction of the votes went to Candidate C?

- a.  $\frac{1}{2}$             b.  $\frac{3}{20}$             c.  $\frac{7}{20}$             d.  $\frac{13}{20}$             e.  $\frac{1}{3}$

8.  $7.2 + 6.9 + 0.077 =$

- a. 2.18    b. 21.8    c. 14.177    d. 141.77

9. Calculate:  $0.8 \times 0.11 =$

- a. 0.88    b. 0.9    c. 0.09    d. 0.088

10. Find the largest number

- a.  $\frac{1}{6}$     b.  $\frac{4}{7}$     c.  $\frac{2}{3}$     d.  $\frac{3}{8}$     e. 0.6

11. Solve for c:  $\frac{5}{11} = \frac{7}{c}$

- a.  $\frac{35}{11}$     b.  $15\frac{2}{5}$     c.  $3\frac{3}{11}$     d. 77

12. 81 is 90% of what number?

- a. 72.9    b. 729    c. 100    d. 90

13. Convert to a percent:  $\frac{6}{15}$

- a. 2.5%    b. 6%    c. 25%    d. 33.3%    e. 40%

14. If you answer 35 questions and get 14 or them wrong, what percent did you get right?

- a. 2.86%    b.  $77\frac{1}{7}\%$     c. 25%    d. 40%    e. 60%

15. What is 1.5% of 300?

- a. 450    b. 200    c. 20    d. 2    e. 4.5

16. Find the average (mean) of the following test scores: 75, 80, 83, and 90.

- a. 328    b. 82    c. 100    d. 85

17. Compute:  $-2 - (-31)$

- a. -33    b. 29    c. -29    d. 33

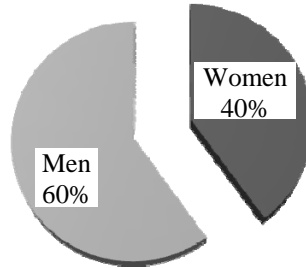
18. Mount Everest measures 8,849 meters in elevation and the elevation of the Caspian Sea is  $-28$  meters. What is their difference in elevation?

- a. 8,820 meters    b.  $-8,777$  meters    c. 8,777 meters    d.  $-8,820$  meters    e. 8, 877meters

19. Write in scientific notation: five billion, seven hundred fifty four million

- a.  $5754 \times 10^5$    b.  $5754 \times 10^6$    c. 0.575   d.  $5.75 \times 10^{11}$    e.  $5.754 \times 10^9$

20. A company with 270 employees has the gender breakdown shown below. How many more men work there than woman?



- a. 162   b. 54   c. -54   d. -16

21. Juanita can choose between a sales job paying a fixed salary of \$2000 per week or a sales job in which she gets paid a \$62 commission on each sale. If she expects to sell 30 units per week, how much more will she make if she chooses the job paying according to a fixed salary?

- a. \$1860   b. \$140   c. \$12,400   d. \$2092   e. \$60,062

22. Express  $\frac{9}{17}$  as a decimal rounded to the nearest hundredth place value.

- a. 0.53   b. 0.54   c. 1.88   d. 1.89

23. Find 20% of 60% of 10,000

- a. 6000   b. 2000   c. 2600   d. 1200   e. 1000

24. Write as a fraction in simplified form: 0.85

- a.  $\frac{1}{20}$    b.  $\frac{5}{8}$    c.  $\frac{85}{100}$    d.  $\frac{17}{20}$    e.  $\frac{17}{200}$

25. There were 16 men at the block party and 20 women. What fraction of the people at the party were women?

- a.  $\frac{16}{20}$    b.  $\frac{4}{5}$    c.  $\frac{4}{9}$    d.  $\frac{5}{9}$    e.  $\frac{5}{4}$

26. A taxi charges \$2.50 initially and \$1.25 for each mile. How far did the taxi drive if the total cost of the trip was \$17.50?

- a. 8 miles   b. 12 miles   c. 7 miles   d. 14 miles   e.  $\frac{1}{2}$  mile

27. Change 2.05 to a mixed number in simplified form

- a. 205      b.  $\frac{1}{20}$       c.  $2\frac{1}{2}$       d.  $2\frac{1}{50}$       e.  $2\frac{1}{20}$

**Short Answers**

28. If a recipe that serves 4 people calls for  $2\frac{1}{2}$  cups of flour, how much flour should be used if there are 10 people to be served?

29. If you brought five sandwiches, each of which cost \$12.00, not including 8% tax, after adding the tax, how much change would you get from a hundred dollar bill?

30. A laptop priced at \$1200 was marked down 50%. A week later it is marked down another 25% from the previous sale price. What is the price?

31. If  $\frac{3}{4}$  of the students passed, and there were 84 students in the class, how many *did not pass*?

32. You need to cut 5 planks of wood that are  $1\frac{1}{4}$  feet long each, and 3 planks of wood that are  $2\frac{3}{4}$  each. If these are cut from a 20 ft length of wood, how much wood will be left?

KEY MAT 010/011 Practice Final Examination Form A

1. C
2. C
3. D
4. C
5. E
6. D
7. C
8. C
9. D
10. C
11. B
12. D
13. E
14. E
15. E
16. B
17. B
18. E
19. E
20. B
21. B
22. A
23. D
24. D
25. D
26. B
27. E
28.  $6\frac{1}{4}$  cups
29. \$35.20
30. \$450
31. 21 students
32.  $5\frac{1}{2}$  feet