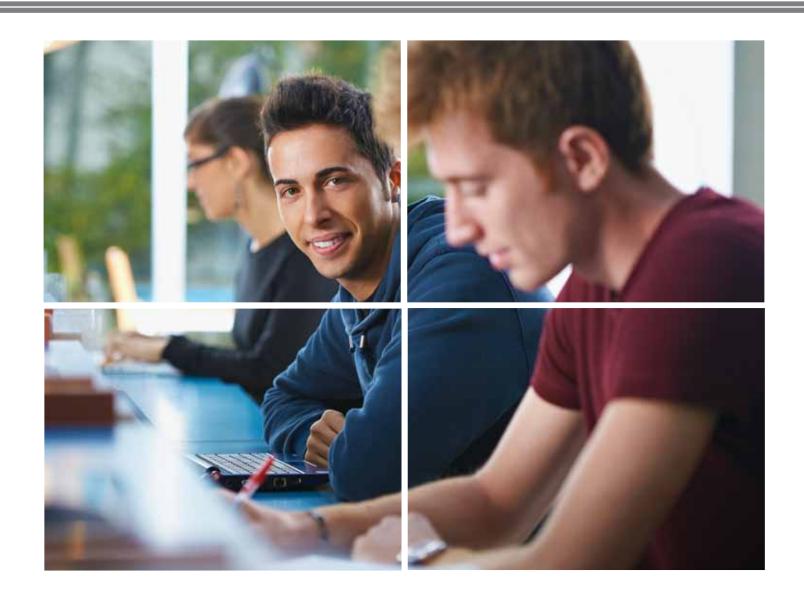# School of Business

practice math test

This booklet contains information about booking your mathematics skills assessment appointment, tips on taking multiple-choice exam, mathematics practice exam with answers. When you feel you are ready to take the mathematics exam, you may make an appointment by:

- Going on-line at **http://winapp.centennialcollege.ca/oat/**

- Calling **416-289-5300**

- Or in person with **Enrolment Services**

   IMPORTANT – If you have learning or medical condition, you may request special accommodations. Please contact the Centre for Students with Disabilities (CSD) at 416-289-5000 Ext. 2627. Students will meet with a CSD Counselor to discuss their concerns and make alternative arrangements for their skills assessments if special accommodations are approved.

   Students applying to multiple programs may only require one math exam to clear admission requirements. Please note that the Engineering math skills assessment can clear admission requirements for Business and General Arts and Science programs.

   On the date of your exam, please arrive on time. You will be required to show Government issued photo ID.

   Examples of acceptable photo ID are:

- **One of the following:** valid passport, driver's license, photo health card, age of majority cards, citizenship card, landed card, minister's permit or a Centennial College student photo ID. The photo must not be older than 5 years.

- If you do not have any of the above then you may provide non-government issued photo ID. These could include other school photo ID, transit photo ID, expired government photo ID or employment ID, and two of the following: birth certificate, social insurance card or non-photo health card.

   Please note students arriving without acceptable ID will not be allowed to write their Skills Assessment. There are no exceptions to this rule.

- Students write mathematics skills assessments online using Accuplacer (with the exception of CAAT D). Exam invigilators will provide detailed instruction on how to sign on to the Accuplacer system. Students unfamiliar with computer technology are offered online tutorials explaining how to use a computer mouse and keyboard and how to take a multiple-choice exam.

- Mathematics skills assessments allow 60 minutes for completion. Students are provided with a four-function onscreen calculator and scrap paper. Results are available upon completion of the Mathematics skills assessment, with a breakdown score of reportable subjects. Results are reported to Enrolment Services within 48 hours.

Centennial College Business Mathematics Practice Test

Reportable subjects tested:

- Fractions
- Decimals
- Percentage
- Exponents
- Equations
- Algebraic Equations
- Word Problems

1. Multiply 0.06 by 0.021

A) 0.0126   B) 0.0000126   C) 0.00126   D) 0.126   E) None of these

2. Divide 4.2 by 0.07

A) 1.33   B) 60   C) 6   D) 600   E) None of these

3. 9 − 3 (2+6)÷6 -2 × 5

A)-2   B) 35   C) 5   D) -5   E) None of these

4. The decimal equivalent of $\frac{9}{40}$ is:

A) 4.44   B) 2.25   C) 0.225   D) 0.0225   E) None of these

5. Express 0.275 as a common fraction in lowest terms:

A) $\dfrac{11}{40}$　　B) $\dfrac{11}{80}$　　C) $\dfrac{22}{80}$　　D) $\dfrac{11}{25}$　　E) None of these

6. Express $\dfrac{2}{5}$ as a percent:

A).4%　　B) 20%　　C) 4%　　D) 2%　　E) None of these

7. 60% of $10.60

A) $1.63　　B) $6.36　　C) $63.60　D) $16.31　E) None of these

8. 24 is what percent of 40?

A) 60%　　B) 3.75%　C) 6%　　D) 37.5%　E) None of these

9. 0.85 is 25% of what sum?

A) 3.4　　B) 34　　C) 21.25　　D) 2.125　　E) None of these

10.　36 is what percent of 30?

A) 83.3%　B) 90%　　C) 120%　D) 72%　　E) None of these

11.　6 is 15% of what number?

A) 90　　B) 0.9　　C) 2.5　　D) 40　　E) None of these

12. **The population of Snowtown was 4500 in 1990. In 1994, it had decreased to 3600. Find the percent decrease in population during those four years.**

A) 80%   B) 90%   C) 16.2%   D) 20%   E) None of these

13. **You receive a grade of 75% on a test of 60 questions. How many questions did you answer correctly?**

A) 45   B) 8   C) 12   D) 50   E) None of these

14. **Sandra's monthly salary is $3200. If a deduction for taxes from her monthly paycheck is $800, what percent of her salary goes to these deductions?**

A) 25%   B) 25.6%   C) 40%   D) 4%   E) None of these

15. **The cost of an article including 15% for taxes is $138.00. What is the cost of the article without taxes?**

A) $120.00   B) $117.30   C) $20.70   D) $92.00   E) None of these

16. **The average of the following group of numbers 43, 29, 51, 36, 33, 42, 32 is**

A) 36   B) 33   C) 38   D) 43   E) None of these

17. Brian had marks of 80, 94, 70, 68, and 83 on five tests. His average score is between

A) 65 and 70   B) 70 and 75   C) 75 and 80   D) 80 and 85

E) None of these

18. 6.42×10^4 is equivalent to:

A) 64,200   B) 642   C) 0.000642   D) 642,000   E) None of these

19. $\dfrac{1}{4} + \dfrac{5}{8} + \dfrac{7}{10}$

A) $\dfrac{14}{18}$ B) $\dfrac{13}{22}$ C) 1.325   D) 1.575   E) None of these

20. $3\dfrac{1}{2} + 4\dfrac{3}{4} + 5\dfrac{3}{10}$

A) $12\dfrac{7}{16}$ B) $13\dfrac{11}{20}$ C) $\dfrac{16}{33}$ D) $12\dfrac{9}{80}$ E) None of these

21. $7\dfrac{1}{8} - 3\dfrac{1}{6} =$

A) $4\dfrac{1}{48}$ B) $4\dfrac{1}{2}$ C) $3\dfrac{23}{24}$ D) $3\dfrac{0}{2}$ E) None of these

22. $7 - 4\dfrac{2}{5} = ?$

A) $3\dfrac{3}{5}$ B) $-2\dfrac{3}{5}$ C) $-3\dfrac{3}{5}$ D) $2\dfrac{3}{5}$ E) None of these

23. 31.7 + 6 + 2.81 ÷0.254

A) 35.264   B) 858   C) 14.52   D) 40.764   E) None of these

24. Subtract 5.485 from 12

A) -17.485   B) 17.485   C) -6.515   D)6.515   E) None of these

25. Dividing by 10, 000 is the same as multiplying by

A)   0.01   B) $\frac{1}{10000}$ C) $\frac{1}{1000}$ D)0.001   E) None of these

26. Ginny baked a delicious apple pie. John ate ¼ of it. The Aldo ate ½ of what was left. How much pie was left after Aldo ate his piece?

A) $\frac{1}{4}$ B) $\frac{1}{8}$ C) $\frac{1}{2}$ D) $\frac{3}{8}$ E) None of these

27. It takes a bus $3\frac{1}{4}$ hours to travel from Toronto to Parry Sound. If the bus averages 88 km/hr, how far is it to Toronto to Parry Sound?

A) 286000 m   B) 2.86   C) 27 km   D) 286 cm   E) None of these

28. Find the missing term: $\frac{4}{7} = \frac{28}{?}$

A) 49   B) 16   C) 56   D) 42   E) None of these

29. If $\frac{a}{10}$ = 0.57, a is equal to

A) 57   B) .057   C) $5\frac{7}{10}$ D) 0.057   E) None of these

30.   Express the following product in lowest terms:

$$3\frac{1}{4} \times \frac{1}{7} \times 8$$

A) $3\frac{3}{7}$ B) $\frac{24}{28}$ C) $5\frac{13}{7}$ D) $\frac{6}{7}$ E) None of these

31.   Simplify $\dfrac{2-\frac{1}{4}}{3-\frac{1}{5}}$ _____, **giving your answer in lowest terms**

A) $\frac{7}{5}$ B) $\frac{5}{8}$ C) $\frac{8}{5}$ D) $\frac{45}{64}$ E) None of these

32.   Simplify $\sqrt{10^2 - 6^2}$

A)   8   B) $\sqrt{136}$ C) 64   D) 2   E) None of these

33.   The value of $- 3(\ 4)^2$ **is :**

A) 48   B) 49   C) -48   D) 144   E) None of these

34.   4÷2 [6- (-5)3]=

A)   -14   B)-54   C) 126   D) 46   E) None of these

35. $\dfrac{10^3}{10^{-2}} =$

    A)   10   B) 10^{-4} C) 10^{-1} D) 10^{-5} E) None of these

36. **How many fifths are there in 4.8?**

A)   24   B) 0.96   C) 1.04   D) 9.6   E) None of these

37. **22r − 15s − 3r + 3s =**

    A)   15rs   B) 22r − 15s C) 7rs   D) 19r-12s E) None of these

38. $\dfrac{a^6}{a^2} =$

    A) a^4 B) a^3 C) a^8 D) a^{-8} E) None of these

39. **(3xy²)³ =**

    A)   3x³y⁶   B) xy   C) 27x³y⁶ D) 9x²y⁶   E) None of these

40.

$$\frac{1}{\frac{1}{a}+\frac{1}{b}} =$$

A) $\frac{a+b}{ab}$ B) $\frac{ab}{a+b}$ C) a²+b²   D) a²-b²   E) None of these

41. $\frac{a}{a+a^2} =$

A) $\frac{a}{a^3}$ B) $\frac{1}{a^2}$ C) $\frac{1}{2a}$ D) $\frac{1}{1+a}$ E) None of these

42. Find the value of y -6y², when y=$\frac{1}{3}$

A) $-\frac{2}{3}$ B) $-\frac{1}{3}$ C) 1   D) $-4\frac{2}{3}$ E) None of these

43. When M = -2 and P = 4, find the value of $\frac{3P-M}{3MP}$

A) 0   B) $\frac{-7}{12}$ C) $\frac{-5}{12}$ D) $\frac{-3}{4}$ E) None of these

44. Express y-4[y-3(y-2)] -5 in simplest form

A) 19+9y   B) -7y – 29   C) -2y²+14y-29   D) 9y-29

E) None of these

45. The expanded form of (3r − 4)² is :

A)   9r²-12r+16   B) 9r²-24r-16   C) 9r² +16   D) 9r²-16

E) None of these

46. Combine fractions and reduce $\frac{5b}{4a} + \frac{b}{3a} - \frac{3b}{a}$

A) $\frac{3b}{8a}$ B) $\frac{17b}{12a}$ C) - $\frac{17ab}{12a^2}$ D) $-\frac{17b}{12a}$ E) None of these

47. Combine fraction $\frac{2m}{t} + \frac{5}{mt}$

A) $\frac{7}{t}$ B) $\frac{2m^2+\_5}{mt}$ C) 2m²t+5t   D) $\frac{2m-5t}{t+mt}$ E) None of these

48. How many 4cm by 4 cm tiles are needed to cover an area, which measures 20 cm, by 28 cm?

A)   48   B) 35   C) 140   D) 560   E) None of these

49. A piece of wire, 536 cm long is cut into two parts such that the longer part is 3 times as long as the shorter part. What are the lengths, in cm, of the two parts?

A) 134cm & 402cm   B) 144cm & 392cm   C) 128cm & 408cm

D) 124cm & 412cm   E) None of these

Answers

1. C
2. B
3. D
4. C
5. A
6. E
7. B
8. A
9. A
10. C
11. D
12. D
13. A
14. A
15. A
16. C
17. C
18. A
19. D
20. B
21. C
22. D
23. D
24. D
25. B
26. D

27. A
28. A
29. C
30. E
31. B
32. A
33. C
34. D
35. E
36. A
37. D
38. A
39. C
40. B
41. D
42. B
43. B
44. D
45. E
46. D
47. B
48. B
49. A

- Additional study material can be found on line at:

   www.khanacademy.org
   This site provides 1400+ videos covering everything from basic arithmetic and algebra to differential equations.

   www.AAAmath.com
   This site focuses on basic math skills, interactive practice, and explanation of concepts, challenge games and random mathematics problems.

   www.Math.com
   This comprehensive site reviews principles from basic mathematics to calculus.

General Test Taking Tips and Strategies for Alleviating Exam Anxiety

- Get enough sleep the night before the skills assessment.

- Plan to arrive on time and in enough time to find the Assessment Centre.

- Know what items you can and cannot bring with you.

- To avoid experiencing test anxiety, approach the test with a positive attitude. Negative self-talk can ruin your ability to do well on a skills assessment.

- Listen carefully to all pre-test instructions prior to starting your skills assessment.

- Carefully read all skills assessment questions and instructions presented.

- Ask questions if you do not understand what is required.

- Utilize materials given during the test such as scratch paper.

- Deal with test anxiety by preparing in advance, taking your time, and pacing yourself throughout the skills assessment.

- During the skills assessment, read the entire question and all choices before attempting to answer.

- The math skills assessment is a multiple-choice test. For multiple choice questions, eliminate the choices that you know are incorrect first. Then attempt to find and choose the answer.

- If you are unsure of the answer, make an educated guess.

- Usually your first choice of the answer is the right one. Do not second guess yourself.