



Please see "Important Notes" on back page

Mathematics Practice Test

Foundations Program (Grade 10 and below)

If you are planning to take a mathematics course in the Foundations Program (grade 10 level and below) at Camosun College, we ask you to write a Mathematics Placement Test. This is not a test that you pass or fail; it is simply a guide to help us place you in the correct math course. We do not expect you to study for the test nor do we expect you to be able to answer all of the questions.

We understand that the thought of writing a math test may cause you some anxiety and so we have prepared this practice test to show you the kinds of questions that you will be asked. This practice test is divided into four parts corresponding to our first five Foundations math courses. We have included course descriptions so that you can see what material is covered in each of our courses.

Directions

The Mathematics Placement Practice Test is not a timed test; there is no need to rush*. Starting at question 1, read the problem carefully and then choose the best answer. You may find it helpful to read all the possible answers before making a choice. It is very important that you do this practice test without a calculator since calculators are not allowed during the real test. After you have done as many of the questions as you can, check your answers with those provided in the answer key on page 4.

*We allot 3 hours for the *actual* test session: approximately 30 minutes for paperwork/ instructions and the balance for testing. The *actual* Mathematics Placement Test was designed to be completed in 2 hours by someone who has completed academic math 12. If you have *less* than math 12, it may take you correspondingly less time but you are entitled to use the full test time regardless of your math background.

Note: placement tests are designed to be written **once** only. It is better not to write the test until you feel ready.

Part A MATH 032 and 033
Fundamental Mathematics 1 and 2

Topics include whole numbers, decimals, fractions, proportion, percent, measurement, geometry, graphs, and practical problem-solving.

1. The number 8 900 021 in words is:

- a) eight million, nine thousand, twenty one
- b) eight million, ninety thousand, twenty one
- c) eight million, nine hundred, twenty one
- d) eight million, nine hundred thousand, twenty one
- e) eighty nine million, twenty one

2. Choose the answer which best completes the number pattern:

16 24 ___ 40 48

- a) 30 b) 32 c) 34 d) 36 e) none of these

3. If a plane flies 612 km per hour, approximately how many kilometres will it travel in 13 hours?

- a) 8500 b) 8000 c) 7500 d) 7000 e) 2500

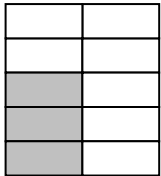
4. Round 5 984 to the nearest hundred.

- a) 5000 b) 5900 c) 5980 d) 5990 e) 6000

5. The 230 people at a party decide to order pizza for a snack. If each pizza has 8 slices, how many pizzas should they order so that each person can have one slice?

- a) 20 b) 21 c) 28 d) 29 e) 30

6. What fraction names the shaded part of this picture?



- a) $\frac{7}{3}$ b) $\frac{10}{3}$ c) $\frac{3}{7}$ d) $\frac{3}{10}$ e) $\frac{7}{10}$

7. A new coat is regularly priced at \$49.95. It is on sale with a discount of 10%. Approximately how much would be saved by purchasing the coat at the sale price?

- a) \$5.00 b) \$10.00 c) \$15.00 d) \$45.00 e) \$60.00

Part B MATH 034
Fundamental Mathematics 3

Topics include whole numbers, fractions, decimals, proportion, percent, graphs, statistics, measurement, and geometry.

8. Add: $2\frac{1}{4} + 5\frac{5}{6}$

- a) $7\frac{1}{12}$ b) $7\frac{6}{10}$ c) $8\frac{1}{24}$ d) $8\frac{1}{12}$ e) none of these

9. Divide: $12\frac{1}{2} \div 3\frac{1}{3}$

- a) $3\frac{3}{4}$ b) $4\frac{1}{6}$ c) $4\frac{1}{4}$ d) $5\frac{1}{2}$ e) none of these

10. Calculate: $20 + 12 \div 2^2$

- a) 8 b) 23 c) 28 d) 36 e) 56

11. Which of the following is equivalent to $6\frac{3}{4}\%$?

- a) 0.00675 b) 0.0675 c) 6.75 d) 675 e) none of these

12. Joan answered all 50 questions on a test. If she scored 78% on the test, how many questions did she get wrong?

- a) 39 b) 38 c) 22 d) 12 e) 11

13. How many $\frac{2}{3}$ cup sugar bowls can be filled from 18 cups of sugar?

- a) 12 b) 21 c) 24 d) 27 e) 36

14. Solve: \$7.32 is 15% of what amount?

- a) \$1.10 b) \$8.42 c) \$10.98 d) \$48.80 e) \$109.80

15. If 3.8 litres of paint is required to cover 45 m² of wall area, how many m² of wall area could be painted with 10 litres?

- a) 17 b) 38 c) 118 d) 171 e) 450

Part C MATH 052
Intermediate Mathematics 1

Topics include proportion, percent, graphs, statistics, measurement, geometry, and trigonometry.

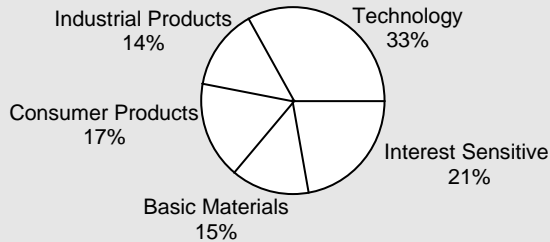
16. A realtor earns a commission of \$9790, which is 5.5% of the selling price of a home. What was the selling price?

- a) \$53,845 b) \$154,000
 c) \$178,000 d) \$195,800 e) none of these

17. Under normal conditions, $1\frac{1}{2}$ feet of snow will melt to become 2 inches of water. How many inches of water will result from $6\frac{3}{4}$ feet of melted snow?

- a) 5 b) 6 c) 8 d) 9 e) 12

18. The circle graph shows the proportion of various investments in a 36.9 million dollar mutual fund. How many million dollars are invested in consumer products investments?



- a) 0.6 b) 6.3 c) 17 d) 62.7 e) 627.3

19. Complete the conversion $1500 \text{ m} = \underline{\hspace{2cm}}$ km, using the following table of metric units of length.

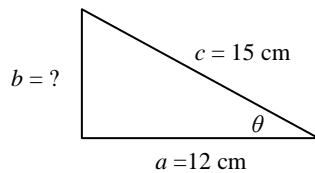
kilo- metre(km)	hecto- metre(hm)	deca- metre(dam)	metre (m)	deci- metre(dm)	centi- metre(cm)	milli- metre(mm)
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- a) 0.15 b) 1.5 c) 15 d) 15,000 e) 1,500,000

20. How much smaller is the area of a 60 cm square table than a rectangular table measuring 94 cm by 46 cm?

- a) 20 cm^2 b) 40 cm^2 c) 724 cm^2 d) 1324 cm^2 e) none of these

21. Find the length of side b .



- a) 3 cm b) 6 cm c) 8 cm d) 9 cm e) 19.2 cm

22. Find the sine of the angle θ in the triangle above.

- a) $\frac{a}{b}$ b) $\frac{a}{c}$ c) $\frac{b}{a}$ d) $\frac{b}{c}$ e) $\frac{c}{a}$

Part D MATH 053
Intermediate Mathematics 2

Topics include real numbers, algebraic expressions, linear equations and inequalities, graphing, and polynomials.

23. Which of the following describes the addition $(-5) + (-6)$?

- i) Starting at 0 on the number line, move left 5 units and then move left another 6 units.
 ii) Starting at -5 on the number line, move left 6 units.
 iii) Your bank account is overdrawn by \$5.00 and you write a cheque for \$6.00.

- a) i only b) ii only c) iii only d) i and ii only e) all

24. Evaluate $8 - 3(x - 2) - 5x$ given $x = -3$.

- a) -14 b) -10 c) 30 d) 38 e) none of these

25. Multiply $(x - 7)(2x + 1)$

- a) $2x^2 - 7$ b) $2x^2 + 15x - 7$
 c) $2x^2 - 15x - 7$ d) $2x^2 - 13x - 7$ e) none of these

26. If $3x + 4 = 15$ then x is closest to

- a) 2 b) 3 c) 4 d) 5 e) 6

27. Simplify $\frac{x^4 x^2}{x^8}$.

- a) 1 b) $\frac{1}{x^2}$ c) x^2 d) $\frac{x^2}{2}$ e) $\frac{1}{2}$

28. One factor of $x^2 - 9x - 36$ is

- a) $x + 2$ b) $x + 3$ c) $x + 4$ d) $x + 6$ e) none of these

29. The length of a rectangle is 3 times its width. If w represents the width, then the area of the rectangle is

- a) $w^2 + 3w$ b) $3w^2$ c) $4w$ d) $3w$ e) $2w + 3$

30. If the price of a CD is reduced 20% to a sale price of \$11.96, then the original price is closest to:

- a) \$13 b) \$14 c) \$15 d) \$16 e) \$17

Answer Key:

- | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. d | 2. b | 3. b | 4. e | 5. d | 6. d | 7. a | 8. d |
| 9. a | 10. b | 11. b | 12. e | 13. d | 14. d | 15. c | 16. c |
| 17. d | 18. b | 19. b | 20. c | 21. d | 22. d | 23. e | 24. d |
| 25. d | 26. c | 27. b | 28. b | 29. b | 30. c | | |

If you were able to answer all of these questions, then you should ask at the **Assessment Centre** for a copy of the **College Preparatory Mathematics Practice Test**.

Resources:

Camosun Courses and Grade Levels	Library Textbooks and Sections to Review (<i>check for current editions</i>)
MATH 034 Fundamental Mathematics 3 (Math 8/9)	<ul style="list-style-type: none">• Bittinger, M.L. <i>Basic Mathematics</i>. Chapters 1 – 9 QA 107 K43 (Lan & Int)
MATH 052 Intermediate Mathematics 1 (Math 10 – Part 1)	<ul style="list-style-type: none">• Bittinger, M.L. <i>Basic Mathematics</i>. Chapters 5 – 8 QA 107 K43 (Lan & Int)• Bittinger, M.L. and J.A. Beecher <i>Geometry Supplement</i>. QA 455 B58 (Lan & Int)• Bittinger, M.L. and J.A. Beecher <i>Trigonometry Update</i>. Sections 6.1 – 6.2 QA 531 B488 (Lan & Int)
MATH 053 Intermediate Mathematics 2 (Math 10 – Part 2)	<ul style="list-style-type: none">• Bittinger, M.L. and J.A. Beecher <i>Introductory and Intermediate Algebra</i>. Chapters 1 – 4, 5.1 – 5.2 QA 152.2 B5624 (Lan & Int)

Important Notes:

- **Monthly assessment schedules** are posted at www.camosun.ca/services/assessment
- **Documented Disability?** If you have a documented disability and require accommodations/supports to write the College placement test contact the Resource Centre Students with a Disability in Dawson 119 or call 250 370-3312, TTY/TDD: 250 370-3311 to set up alternative testing arrangements.
- **Test Anxiety?** For the most up-to-date information on learning how to keep your cool at test time go to the Counselling website <http://camosun.ca/services/counselling/counselling-types.html>
- **Need help with Math?** Visit the friendly folks in the Foundations Help Centre. To see the locations and times available go to www.camosun.ca/learn/programs/help-centres.html.
- **Advising: Need help planning your education?** Academic Advisors help you explore educational options, develop a Personal Learning Plan, understand admission processes, plan course selections and interpret educational institution rules and regulations as they apply to you. Email at academicadvising@camosun.bc.ca or drop in to Academic Advising (hours on website).

