# CAMOSUN COLLEGE ASSESSMENT CENTRE
## Foundations Program (Grade 10 and below)
# Mathematics Practice Test

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 below.

**Answer Key**

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

## 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

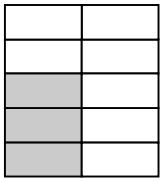
4. Round 5 984 to the nearest hundred.

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 $m^2$ of wall area, how many $m^2$ 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.

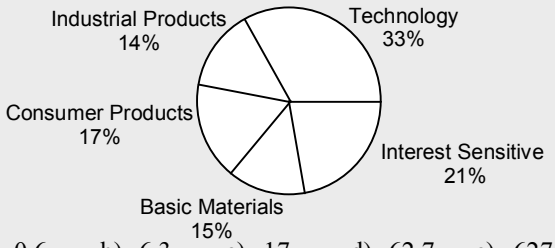
16. A realtor earns a commission of \$9790 , which is 5.5% of the selling price of a home. What was the selling price?

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

17. Under normal conditions, 1½ feet of snow will melt to become 2 inches of water. How many inches of water will result from 6¾ 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 m = _____ km, using the following table of metric units of length.

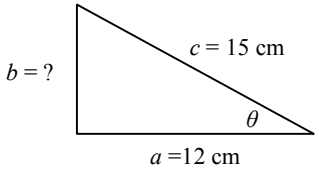
| kilo-metre(km) | hecto-metre(hm) | deca-metre(dam) | **metre (m)** | deci-metre(dm) | centi-metre(cm) | milli-metre(mm) |
|---|---|---|---|---|---|---|

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

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

| Camosun Courses & Grade Levels | Library Textbooks and Sections to Review |
|---|---|
| MATH 034 Fundamental Mathematics 3<br>(Math 8/9) | • Bittinger, M.L.<br>*Basic Mathematics*. 9th ed.<br>Chapters 1 – 9<br>**QA 107 K43 2003 (Lan & Int)** |
| MATH 052 Intermediate Mathematics 1<br>(Math 10 – Part 1) | • Bittinger, M.L.<br>*Basic Mathematics*. 9th ed.<br>Chapters 5 – 8<br>**QA 107 K43 2003 (Lan & Int)**<br>• Bittinger, M.L. and J.A. Beecher<br>*Geometry Supplement*.<br>**QA 455 B58 2000 (Lan & Int)**<br>• Bittinger, M.L. and J.A. Beecher<br>*Trigonometry Update*. Sections 6.1 – 6.2<br>**QA 531 B488 1993 (Lan & Int)** |
| MATH 053 Intermediate Mathematics 2<br>(Math 10 – Part 2) | • Bittinger, M.L. and J.A. Beecher<br>*Introductory and Intermediate Algebra*. 2nd ed.<br>Chapters 1 – 4, 5.1 – 5.2<br>**QA 152.2 B5624 2003 (Lan & Int)** |