**Review of Concepts: Student self-assessment**

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 | * Complete each question independently without checking your notes.
* Check your answers to determine which concepts targets you have completed.
* For any questions you were not able to complete, check your notes and see if you can complete the question on your own.
* Finally, complete the rest of the questions with assistance if necessary and determine what further steps you need to take to be well prepared for the unit test.
 | Completed independently | I need to review my notes and practice | I need to seek help. |
|  | **3.1 Factors and Multiples** |  |  |  |
|  | 1. Greatest Common Factor

Find the G.C.F. of 252 and 210  |  |  |  |
|  | 1. Lowest Common Multiple

Find the L.C.M. of 252 and 210 |  |  |  |
|  | **3.2 Perfect squares, perfect cubes and their roots**  |  |  |  |
|  | 1. Use prime factorisation to determine if the number is a perfect square, a perfect cube, both or neither.
2. 676
 |  |  |  |
|  | 1. 1728
 |  |  |  |
|  | 1. Solve problems involving volume, surface area, area and perimeter of squares and cubes.
2. A cube has a volume of 19 683cm3. Find the surface area of the cube.
 |  |  |  |
|  | 1. A square has an area of 2304 cm2. Find the perimeter.
 |  |  |  |
|  | * 1. **Rational and Irrational Numbers**
 |  |  |  |
|  | http://upload.wikimedia.org/wikipedia/commons/9/9d/The_Real_Number_System.pnghttp://upload.wikimedia.org/wikipedia/commons/9/9d/The_Real_Number_System.pnghttp://upload.wikimedia.org/wikipedia/commons/9/9d/The_Real_Number_System.pnghttp://upload.wikimedia.org/wikipedia/commons/9/9d/The_Real_Number_System.pnghttp://upload.wikimedia.org/wikipedia/commons/9/9d/The_Real_Number_System.pngClassify numbers in the real number system1. Place each number once on the diagram: 3-2, -40, π, , 0, , 2

http://www.aeei.gov.sk.ca/evergreen/mathematics/images/math_image_64.JPG |  |  |  |
| √√X |  | Completed | I need to review my notes and practice | I need to seek help. |
|  | * 1. **Mixed and Entire Radicals**
 |  |  |  |
|  | Change an entire radical to a mixed radical1. a)
 |  |  |  |
|  | b)  |  |  |  |
|  | Change a mixed radical to an entire radical.1. a)
 |  |  |  |
|  | b) |  |  |  |
|  | **4.4 Fractional Exponents and Radicals** |  |  |  |
|  | Change from exponential form to radical form to evaluate a power with a fractional exponent.1. a) Change  to an equivalent radical form and evaluate.
 |  |  |  |
|  | b) Change  to an equivalent radical form and evaluate. |  |  |  |
|  | c) Change 320.8 to an equivalent radical form and evaluate. |  |  |  |
|  | **4.5 Negative Exponents and Reciprocals** |  |  |  |
|  | Change a power with a negative exponent to an equivalent power with a positive exponent in order to evaluate.1. a) Change  to a power with a positive exponent and evaluate.
 |  |  |  |
| √X |  | Completed | I need to review my notes and practice | I need to seek help. |
|  | 1. Change  to a power with a positive exponent and evaluate.
 |  |  |  |
|  | 1. Change  to a power with a positive exponent and evaluate.
 |  |  |  |
|  | Evaluate a power with a negative, fractional exponent by making it positive and then changing it to a radical form.1. a) Evaluate:
 |  |  |  |
|  | b) Evaluate:  |  |  |  |
|  | **4.6 Applying the Exponent Laws** |  |  |  |
|  | Simplify numeric expressions using exponent laws.1. a) Simplify: (0.4)-2**·**(0.4)5**·**(0.4)0
 |  |  |  |
|  | 1. Simplify:
 |  |  |  |
|  | 1. Simplify:
 |  |  |  |
|  | d) Simplify:  |  |  |  |
|  |  e) Simplify:  |  |  |  |
| √X |  | Completed | I need to review my notes and practice | I need to seek help. |
|  |  Simplify expressions with both coefficients and variablesChange radicals to exponents and then apply power laws to positive, negative and fractional exponents to simplify. Give the answer with positive exponents.1. a) Simplify:
 |  |  |  |
|  | 1. Simplify:
 |  |  |  |
|  | 1. Simplify:
 |  |  |  |
|  | 1. Simplify:
 |  |  |  |

Using the results from your assessment, you can choose practice questions for the topics that need the most attention. Unless you were able to complete this review successfully in class without assistance, you should complete a minimum of 10 questions for homework. Please attach your homework questions to this assessment and hand it in on the day of the test.

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| 3.1 **Factors and Multiples** | Page 149Page 198 | Questions (1 – 4)Questions (1 – 5) |
| 3.2 **Perfect squares, perfect**  **cubes and their roots** | Page 149Page 198 | Questions (6 – 10)Questions (6 – 10) |
| 4.2 **Rational and Irrational**  **Numbers** | Page 221Page 246 | Questions (4 – 8)Questions (6 – 9) |
| 4.3 **Mixed and Entire Radicals** | Page 221Pages 246-247 | Questions (9 – 11)Questions (11 – 15) |
| 4.4 **Fractional Exponents and**  **Radicals** | Page 236Page 247 | Questions (1 – 6)Questions (16 – 22) |
| 4.5 **Negative Exponents and Reciprocals** | Page 236Pages 247-248 | Questions (7, 8)Questions (23 – 27) |
| 4.6 **Applying the Exponent Laws** | Page 248Worksheet | Questions (28 -32) |