Challenge Exam Information Sheet 32804325 Applied Technical Math 1

Course Information

Course # Title	32804325 Applied Technical Math 1
Credits	3
Instructional Area	Mathematics
Instructional Level	Technical Diploma
Division	General Studies

Click here Applied Technical Math 1 to review the detailed course outcome summary for this course to determine if you are prepared to take this challenge exam.

Challenge Exam Format

Number/Format of Questions:	Part 1 – 22 Questions Part 2 – 31 Questions Use space on the exam to show work for opportunity to earn partial credit
Passing Score:	90 of 112 points (80 percent of total Points)
Time Allowed For Completion:	2 hours. Reasonable bathroom breaks and emergencies allowed.
Materials Allowed In Testing Room:	Part I and Part II – Northwood Tech will provide a TI-30XIIS scientific calculator if you do not choose to bring your own (you cannot use a phone, tablet or any device that is programmable, has a camera, or connectivity; graphing calculators are prohibited) Hand in exam when finished.

How Exam Will Be Scored: Points will be awarded for each step. Correct answers with no work shown will not receive full points (Example: A 4-point question with the correct answer but without work shown would only receive 1 point).

When/How Results Will Be Available: Results will be emailed to your Northwood Tech email account within one week of taking the exam.

Challenge Exam Guidelines

Understand that Challenge Exams are evaluative, rather than learning, experiences. Results indicate only whether a student has earned credit for prior learning: pass or fail. No score is available, nor is a report of how a student performed on any piece of the exam.

- Prior to taking the challenge exam, you must:
  - ✓ be an admitted student.
  - ✓ pay a non-refundable fee of $50.
- You may only attempt this Challenge Exam once in a 12-month period.
- The exam may be scheduled before or after the course begins, but must be completed within the first seven calendar days from the course start date.
- Reasonable accommodations for persons with disabilities will be made to ensure access to academic programs, activities, services and employment in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Amendments Act of 2008 (ADAA). Students with a documented disability must request accommodations by contacting the campus Accommodation Specialist and following required steps to obtain accommodations at the post-secondary level.
- If you are enrolled in the course and successfully complete the Challenge Exam, you will receive a 100 percent tuition refund for the course.

NOTE: A reduced credit load may affect your financial aid and/or insurance eligibility if you successfully complete a Challenge Exam. Please contact your advisor or the financial aid office for more information.

Applied Technical Math 1 – SAMPLE Challenge Exam Questions

1. A welder has $85\frac{1}{8}$ inches of pipe stock at their workstation at the beginning of a shift. Throughout the shift, lengths of $5\frac{3}{4}$ inches, $15\frac{1}{2}$ inches, and $19\frac{3}{8}$ inches are used. How much pipe stock is left at the welder's work station?

2. An internal combustion engine has a displacement of 0.675 L per cylinder. What is the total displacement of an 8 cylinder engine?

3. If an 8 acre field yields 1,296 bushels of corn, how much would 37 acres yield?

4. A welder uses 74 ft of wire. This is 18.5% of the roll. How many feet were in the roll of wire?

5. A. 18.3 in = _____ cm (1 in = 2.54 cm)

   B. 1.7 lb / ft2 = _____ g / mm2 (1 lb = 2,200 g)

6. Solve: $8x - 13 = 5x + 29$

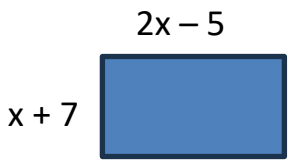
7. Evaluate the formula: $A = \left(\frac{b+B}{2}\right) \times h$ for b = 12 in, B = 16 in, and h = 9 in

8. Solve $P = \frac{V^2}{R}$ for V:

9. Covert 37.5% to a fraction

10. Evaluate: $\frac{(8+3)(11-2)}{24 \div 3 + 5^2}$

11. Find a simplified expression for the perimeter:



Answers:

1. 44 1/2 in
2. 5.4 L
3. 5,994 bushels
4. 400 ft
5. A = 46.482 cm B = 0.040 g / mm^2
6. x = 14
7. 126 in^2
8. V = √PR
9. 3/8
10. 3
11. 6x + 4