MAT 1033, INTERMEDIATE ALGEBRA SYLLABUS, Gibbs HS Fall 2017

INSTRUCTOR:  Zachary Foulk, MS
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  Office Hours: appointment only (usually before/after class)
  Web Page: http://www.spcollege.edu/instructors/id/foulk.zachary

ACADEMIC DEPARTMENT:  Mathematics
  Dean:  Jimmy Chang
  Office:  Social Arts Building, Room 215B
  Phone:  (727) 341-4305

  Academic Chairperson:  David Kolonoski
  Office:  Social Arts Building, Room 215A
  Phone:  (727) 341-3573

COURSE INFORMATION

Course Prefix and Number:  MAT 1033
Course Name:  Intermediate Algebra

Course Description:  Major topics studied: factoring, algebraic fractions, radicals and rational exponents, complex numbers, quadratic equations, linear equations and inequalities, systems of linear equations and inequalities, introduction to functions, and applications.

Major Learning Outcomes

1. The student will demonstrate an understanding of properties and terminology when working with mathematical expressions.
2. The student will demonstrate an understanding of algorithmic processes and concepts when performing algebraic manipulations, interpretations, and computations on mathematical expressions, equations, and inequalities.

Course Objectives Stated In Performance Terms

1. The student will demonstrate an understanding of properties and terminology when working with mathematical expressions by:
a. using precise mathematical language.
b. applying the order of operations agreement to simplify expressions involving integers, exponents and radicals.
c. simplifying and performing operations with radical expressions.
d. using functional notation to evaluate a function.

2. The student will demonstrate an understanding of algorithmic processes and concepts when performing algebraic manipulations, interpretations and computations on mathematical expressions, equations and inequalities by:

   a. solving literal equations which involve factoring a common factor.
   b. multiplying and dividing exponential expressions with rational exponents.
   c. factoring polynomials including the sum and difference of cubes.
   d. adding, subtracting, multiplying and dividing algebraic fractions including monomial, binomial, and trinomial denominators expressing the result in simplified form.
   e. solving radical equations involving one radical expression (square root).
   f. writing an equation in slope-intercept, standard and general form for a line which passes through two given points.
   g. writing an equation in slope-intercept, standard and general form for a line when given the slope and a point on the line.
   h. solving systems of linear equations in two variables graphically and algebraically.
   i. solving systems of linear inequalities in two variables by graphing.
   j. solving real world problems using one or two variables.
   k. solving quadratic equations by factoring, completing the square and using the quadratic formula.
   l. solving real world problems which require the use of quadratic equations.
   m. graphing quadratic functions including finding the vertex, axis of symmetry and x- and y- intercepts.
   n. solving rational equations.
   o. performing operations on complex numbers and write the answer in standard form (a + bi).

**Prerequisites:** MAT 0028 (Elementary Algebra) or satisfactory score on the College Placement Test.
REQUIRED TEXT & OTHER RESOURCE INFORMATION:

Calculator: Recommended, not required. TI84 preferred. Cell phone/tablet calculators are NOT permitted for quizzes or tests.

MEETING INFORMATION

Class Number 3833: Gibbs High School MTh 8:42am – 10:14am

IMPORTANT DATES:

Course Dates: August 10, 2017 – December 18, 2017
Drop/Add: Not Applicable
Withdrawal Date: Not Applicable
PCSB Holidays: September 4, Labor Day; October 16, no school; November 20-24 Thanksgiving

ACADEMIC HONESTY

St. Petersburg College has an Academic Honesty policy. It is your responsibility to be familiar with the policies, rules, and the consequences of violations. Read about the policy at: [http://www.spccollege.edu/studentrights/](http://www.spccollege.edu/studentrights/). There is no tolerance for cheating and academic dishonesty. Discipline can range from a zero on that specific assignment to expulsion from the class with a grade of F. Note that copy/pasting published information, whether it's from your textbook or the Internet, without citing your source is plagiarism and violates this policy. Even if you change the words slightly, the ideas are someone else's, so you still have to cite your sources. For the complete and most current policy on academic honesty, please refer to College Rule 6Hx23-4.461 ACADEMIC AFFAIRS: ACADEMIC HONESTY POLICIES

ATTENDANCE AND ACTIVE PARTICIPATION

The college-wide attendance policy is included in the Syllabus Addendum [http://www.spccollege.edu/addendum/](http://www.spccollege.edu/addendum/).

The policy notes that each instructor is to exercise professional judgment and define “active participation” in class (and therefore “attendance”), and publish that definition in each syllabus.
Instructors will verify that students are in attendance during the first two weeks of class. Students classified as “No Show” for both of the first two weeks will be administratively withdrawn from any class which they are not attending. The student’s financial aid will be adjusted based on their updated enrollment status. If a student is administratively withdrawn from a class because they were a “No-Show” during the first two weeks of class, financial aid will not pay for the class and the student will be responsible for paying for that class.

Students who are not actively participating in class as defined in an instructor's syllabus will be reported to the Administration during the week following the last date to withdraw with a “W” (as posted in the academic calendar on the college’s web site). A grade of “WF” will be assigned to students who are not actively participating during the week following the last day to withdraw with a W grade. For this class, **ACTIVE PARTICIPATION** is defined as: taking at least one test.

Instructors will no longer be required or able to withdraw students for any reason. Students will be able to withdraw themselves at any time during the term. However, requests submitted after the last date to withdraw with a “W” (see academic calendar) will result in a “WF.” Students and instructors will automatically receive an email notification through their SPC email address whenever a withdrawal occurs.

**SPECIAL ACCOMMODATIONS**

If you wish to request accommodations as a student with a documented disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you will need assistance during an emergency classroom evacuation, please contact your campus learning specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at 791-2628 or 791-2710 (CL), 341-4758 (SP/G), 394-6108 (SE) 712-5789 (TS) or 341-4532 (AC).

All testing for students with ANY type of accommodations will be in the Testing Center, Room, AD 110, Administrative Building. Tests must be completed in the time frame designated by the instructor. Students are responsible for making appointments with the Testing Center to take tests within each test time frame. Late testing for ANY reason will result in a score of zero (0). No makeup tests are given for not completing a test with the designated time frame.
COURSE OVERVIEW

I will be lecturing following the textbook “Intermediate Algebra” by Tobey and Slater, 7th edition. The lectures will cover Chapter 2 thru Chapter 8 as outlined in the course schedule listed at the end of the syllabus. My lectures will emphasize the major concepts in each section. The homework problems scores are added toward each test. The required problems are posted in the Course Content section of MyCourses.

GRADING

There will be 5 chapter tests and a final comprehensive final exam. I will drop your lowest chapter test score. Your final exam will count as TWO chapter tests. Your final grade is the average of the 4 highest chapter test scores and your final exam score counted TWICE. I award partial credit if you attempt to answer test questions.

Each chapter test has homework problems from related sections in the book. The course schedule lists the homework problem numbers and the due dates for your answers. HOMEWORK IS DUE AT THE BEGINNING OF CLASS. LATE HOMEWORK PROBLEM RECEIVE A ZERO. IF YOUR ARE TARDY TO CLASS, YOUR ANSWERS ARE LATE. Your homework grades are added to your test score. Incorrect answers will NOT count against your test score. Please review the Homework Procedures file in the Course Content section for required formatting and procedures.

The lowest test score is dropped, so, IF YOU MISS A SCHEDULED TEST, NO MAKE-UP TEST IS GIVEN.

Your final grade is based on your average score as follows:

A – 90.0 and higher
B – 80.0 to 89.9
C – 70.0 to 79.9
D – 60.0 to 69.9
F – Less than 60.0
EMERGENCY PREPAREDNESS

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you MAY be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations. This syllabus is currently available in MyCourses for your convenience. Log in to MyCourses to confirm that you have access to the course and report any difficulty to the SPC Student Technical Call Center at (727) 341-4357 or email at Onlinehelp@spcollege.edu

CAMPUS SAFETY AND SECURITY

For information on campus safety and security, policies please contact daytime: 341-4657, after 7:30 pm: 791-2560, cell 639-3262. For information on registered sexual offenders on SPC campuses please contact campus security or the Associate Provost’s office. For general information, please go to the state of Florida’s website at http://www3.fdle.state.fl.us/sopu/index.asp

At NO TIME are students to bring any children to the classroom. If a child is brought to the classroom, security personnel will be notified to safely remove the child from the classroom.

STUDENTS’ EXPECTATIONS AND INSTRUCTOR’S EXPECTATIONS

Student Conduct: You are expected to be knowledgeable of and comply with the published SPC student conduct expectations at https://www.spcollege.edu/studentconduct/.

Academic Honesty Policy: The SPC Academic Honesty Policy is published at http://www.spcollege.edu/academichonesty/

STUDENT SURVEY OF INSTRUCTION

The student survey of instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential, anonymous and will be used solely for the purpose of performance improvement. The survey is available in MyCourses.
COURSE GUIDELINES

Test Taking Rules

1. You can use your hand calculator, but I will NOT help with it DURING the test. You are NOT allowed to use the calculator on your phone, PDA, laptop computer or any other electronic device during a test.

2. Keep all electronic devices off except your calculator during the tests.

3. Use only PENCIL for the test. It is easier for you to make corrections on your test.

4. Write ALL your work on my tests. You do not need SCANTRON answer sheets nor scratch paper; however, bring your OWN calculator and pencils. NO SHARING during the test. Borrow before you come to class NOT during the test.

Classroom Etiquette/Expectations

1. Please turn off cell phones and beepers BEFORE entering the classroom.

2. Keep all conversation brief, quiet, and related to the topic during the lecture. This shows respect to me and the other students.

3. No eating or drinking in the classroom. This is a college policy to minimize any pest problems.

4. If you come in late or need to leave the classroom for personal matters during the lecture, please do so quietly. Let me know if you need to leave early.

5. No sleeping in class. If you can’t stay awake, please leave quietly. Sleeping and snoring in class is very distracting to everyone awake.

6. All students should conduct themselves in a professional matter at all times while in the classroom. All students should respect the instructor, fellow classmates, and any guest speakers at all times while in the classroom. Please do not disturb the class or you will be asked to leave.
Tips On Passing The Course Successfully

1. Attend the lectures. I attempt to explain ideas the author assumes you know. We will cover a new concept EVERY lecture. You miss new information every time you miss a lecture. If you miss a lecture, you are responsible for learning the material presented during that lecture.

2. Read the sections BEFORE coming to class. This exposes you to the new concepts so you can follow the lecture and discussion. We will cover the sections as listed in the schedule and my lectures will follow the book. You can help yourself by reading ahead, attempting some of the homework and being prepared with questions on the material presented in class.

3. After each lecture, DO the homework BEFORE the next lecture. Plan AT LEAST 2 hours of study and homework for EVERY lecture hour.

4. ASK questions in class. If you don’t understand a concept or application, you need to ask for help right away. Each lecture uses the information presented in previous lectures. If you don’t keep up, it will be difficult for you to understand the new material.

5. Participate in class. We practice many problems during the lectures. If you have difficulty with a problem, ask for help. I can not help if I don’t know where you are having difficulty. Remember, a minimum of 2 hours study for every 1 hour of lecture. This is a minimum of 6 hours of studying EVERY week.

LEARNING SUPPORT COMMONS

A facility is available on every campus to assist students with all aspects of the college. These facilities have tutoring services for college courses, basic computer skills and software. Check the SPC website for hours of operations.

Midtown Center: MT 107
Downtown Center: Tutoring – DC 314, Computer Lab – DC 255
Gibbs Campus: Technical Building, Room TE200
Clearwater Campus: Language Arts Building, Room LA 100
Seminole Campus: Technology Learning Center, Room TL 104
Tarpon Springs: Library Atrium
Health Education Center: Room 199
STUDENTS’ RESPONSIBILITIES

1) Students are responsible for **ALL** the requirements, policies, and procedures listed in the course syllabus. Students should email the instructor through MyCourses **IMMEDIATELY** concerning any questions about syllabus requirements, class policies, or class procedures.

2) Students are responsible for regularly checking and reading any emails and notices posted in MyCourses **AND** their SPC Student email account for course and general college information. Any college, course, or syllabus changes will be posted in MyCourses.

3) The primary means of communications with the instructor is through the MyCourses email account. The first method students should use to contact the instructor is with an email message in MyCourses. **ALL** other methods are considered secondary. There is no assurance or guarantee the instructor will receive any message sent by **ANY** secondary method.

SYLLABUS CHANGES

Students are responsible for **ALL** SPC requirements, policies, and procedures and those published in the course syllabus. The instructor reserves the right to make syllabus changes as needed at any time during the semester. Changes will be posted in MyCourses and emails will be sent out in MyCourses with the changes.
Examples of Using Math

**Real Estate**

1. A house was listed for $53,600. The seller agreed to pay an 8.5% commission to the real estate agent. Later the seller accepted a buy offer that was 5% less than the list price when the real estate agent reduced the commission charge to 6%. How much money was the real estate agent paid?

2. The market value of a property is $198,500. The local property tax rate is $8.35 per $100 of only 25% of the market value of the property. How much is the property tax?

3. A real estate agent sells a property for $220,000. The real estate broker charges a 3% commission for the sale, out of which 60% is paid to the real estate agent. How much is the real estate agent paid?

**Health Care**

4. A doctor orders 20 grains of medicine for a patient. The medicine on hand is in tablets of 250 milligrams. Given that there are 60 milligrams in 1 grain, how many tablets does the nurse give the patient?

5. A pre-op solution must contain 0.2 mg Atropine. The nurse has a solution of Atropine containing 0.8 mg per cc. If 1 cc equals 16 minims, how many minims of solution will contain the required amount of Atropine?

6. A doctor orders a 1000cc intravenous saline bottle to be given to a patient over an 8 hour period. The nurse must set the drip rate of the bottle. If there are 15 drops per cc, what is the number of drops per minute the nurse needs to set to follow the doctor’s order?

**Business Owner/Manager**

7. To comply with the tax laws, an 18% withholding tax must be deducted from each employee’s paycheck. If an employee earns $475.50 per week, how much money is withheld each week and how much money does the employee actually receive?

8. The shopping mall charges a monthly rent of $1350 or 6% of sales whichever is greater. What is your rental expense if your monthly sales are $17,500?
## MAT 1033 (MTh) Intermediate Algebra Fall 2017 Course Schedule, Gibbs HS

<table>
<thead>
<tr>
<th>Lecture - Date</th>
<th>Assignment</th>
<th>Recommended Homework</th>
<th>Homework Due Date</th>
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</thead>
<tbody>
<tr>
<td>1 – 10 Aug</td>
<td>2.1</td>
<td>2.1: 1-52 odd</td>
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</tr>
<tr>
<td>2 – 14 Aug</td>
<td>2.2/2.3</td>
<td>2.2: 1-22 odd</td>
<td>Ch 2: problem 1</td>
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<tr>
<td></td>
<td></td>
<td>2.3: 1-32 odd</td>
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</tr>
<tr>
<td>3 – 17 Aug</td>
<td>2.4/2.5</td>
<td>2.4: 1-14 odd</td>
<td>Ch 2: problem 2</td>
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<td></td>
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<td>2.5: 1-30 odd</td>
<td>Ch 2: problem 3</td>
</tr>
<tr>
<td>4 – 21 Aug</td>
<td>2.6/2.7</td>
<td>2.6: 1-46 odd</td>
<td>Ch 2: problem 4</td>
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<tr>
<td></td>
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<td>2.7: 29-42 odd</td>
<td>Ch 2: problem 5</td>
</tr>
<tr>
<td>5 – 24 Aug</td>
<td>Review Ch 2</td>
<td>Chapter 2 Practice Test</td>
<td>Ch 2: problem 6</td>
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<tr>
<td>6 – 28 Aug</td>
<td>Test Chapter 2</td>
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<tr>
<td>7 – 31 Aug</td>
<td>3.1/3.2</td>
<td>3.1: 5-36 odd</td>
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<td></td>
<td></td>
<td>3.2: 1-36 odd</td>
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<tr>
<td>8 – 7 Sep</td>
<td>3.3/3.5</td>
<td>3.3: 7-45 odd</td>
<td>Ch 3: problem 1</td>
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<tr>
<td></td>
<td></td>
<td>3.4: 7-24 odd</td>
<td>Ch 3: problem 2</td>
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<tr>
<td></td>
<td></td>
<td>3.5: 5-45 odd</td>
<td>Find Perpendicular slope</td>
</tr>
<tr>
<td>9 – 11 Sep</td>
<td>4.1, 4.4</td>
<td>4.1: 5-50 odd</td>
<td>Ch 3: problem 3</td>
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<tr>
<td></td>
<td></td>
<td>4.4: 5-26 odd</td>
<td>Ch 3: problem 4</td>
</tr>
<tr>
<td>10 – 14 Sep</td>
<td>Review Ch 3 &amp; 4</td>
<td>Chapter 3 Practice Test</td>
<td>Ch 3: problem 5</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 4 Practice Test</td>
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<tr>
<td>11 – 18 Sep</td>
<td>Test Chap 3 &amp; 4</td>
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<tr>
<td>12 – 21 Sep</td>
<td>5.4/5.5</td>
<td>5.4: 1-36 odd</td>
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<td>5.5: 1-64 odd</td>
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<tr>
<td>13 – 25 Sep</td>
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<td>5.6: 5-74 odd</td>
<td>Ch 5: problem 1</td>
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<tr>
<td>14 – 28 Sep</td>
<td>5.7/5.8</td>
<td>5.7: 5-40 odd</td>
<td>Ch 5: problem 2</td>
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<td>5.8: 1-30 odd</td>
<td>Ch 5: problem 3</td>
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<tr>
<td>15 – 2 Oct</td>
<td>Review Ch 5</td>
<td>Chapter 5 Practice Test</td>
<td>Ch 5: problem 4</td>
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<tr>
<td>16 – 5 Oct</td>
<td>Test Chapter 5</td>
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<td>6.2: 3-30 odd</td>
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<tr>
<td>18 – 12 Oct</td>
<td>6.2/6.3</td>
<td>6.3: 1-20 odd</td>
<td>Ch 6: problem 1</td>
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<tr>
<td>20 – 23 Oct</td>
<td>6.5</td>
<td>6.5: 1-28 odd</td>
<td>Ch 6: problem 3</td>
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<tr>
<td>21 – 26 Oct</td>
<td>Review Ch 6</td>
<td>Chapter 6 Practice Test</td>
<td>Ch 6: problem 4</td>
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<td>Lecture - Date</td>
<td>Assignment</td>
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<tr>
<td>22 – 30 Oct</td>
<td>Test Chapter 6</td>
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<tr>
<td>23 – 2 Nov</td>
<td>7.1/7.2</td>
<td>7.1: 1-72 odd</td>
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<td>7.2: 5-88 odd</td>
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<td>24 – 6 Nov</td>
<td>7.3/7.4</td>
<td>7.3: 1-56 odd</td>
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<td>25 – 9 Nov</td>
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<td>26 – 13 Nov</td>
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<td>7.6: 5-82 odd</td>
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<td>27 – 16 Nov</td>
<td>Review Ch 7</td>
<td>Chapter 7 Practice Test</td>
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<td>28 – 27 Nov</td>
<td>Test Chapter 7</td>
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<td>29 – 30 Nov</td>
<td>8.1, 8.2,</td>
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<td>8.2: 5-32</td>
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<td>30 – 4 Dec</td>
<td>8.2, 8.4</td>
<td>8.4: 1-22 odd</td>
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<td>31 – 7 Dec</td>
<td>8.5</td>
<td>8.5: 1-24 odd</td>
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<tr>
<td>32 – 11 Dec</td>
<td>Review Ch 8</td>
<td>Chapter 8 Practice Test</td>
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<tr>
<td>33 – 14 Dec</td>
<td>Review Final</td>
<td>Chapter 1-8 Cumulative Test</td>
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<tr>
<td></td>
<td>Exam</td>
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<tr>
<td>34 – 18 Dec</td>
<td>Final Exam</td>
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</tbody>
</table>

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