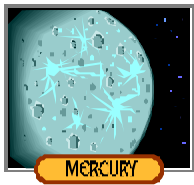


MATH SUPERSTARS



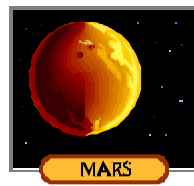
Kindergarten – Mercury



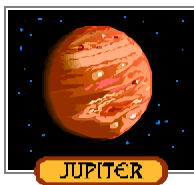
Grade 1 – Venus



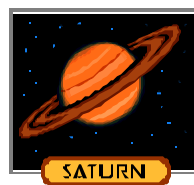
Grade 2 – Earth



Grade 3 – Mars



Grade 4 – Jupiter



Grade 5 – Saturn



Grade 6 – Uranus



Grade 7 – Neptune



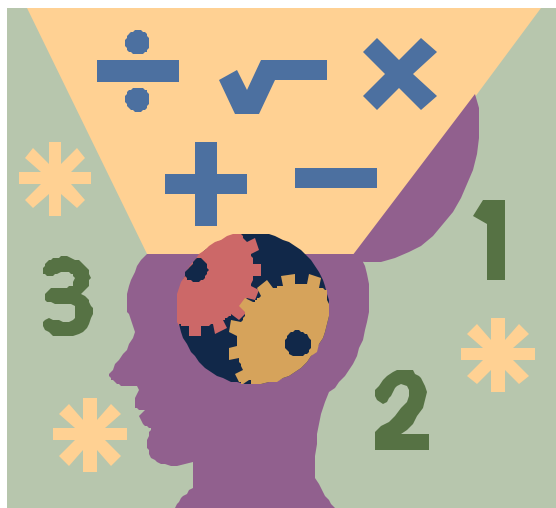
Grade 8 – Pluto

★★★★ ACKNOWLEDGMENTS ★★★★★

Sunshine Math or *Superstars III* is the third in a series of problem solving programs. It was conceived, coordinated and developed through the Florida Department of Education in the early 1980s. The program and its predecessor programs, *Superstars* and *Superstars II*, dwell on the positive aspects of students, parents, teachers, and administrators working together. This program assumes that children, even young children, are capable of and interested in learning; that teachers want to help them learn to think for themselves; that administrators see their jobs as clearing the path so that quality education is delivered effectively in their schools; and that parents care about their child's learning and are willing to work with the school system toward that goal. Each of these four groups has a vital role to play in implementing the program.

The program's initiators believed that elementary students are capable of much more than we normally ask of them, and the subsequent success of *Superstars* indicates that many children are on the path to becoming independent learners. A number of children in any classroom are bright, energetic, and willing to accept extra challenges.

The basic purpose of the *Superstars* program is to provide the extra challenge that self-motivated students need in mathematics, and to do so in a structured, long-term program that does not impinge on the normal classroom routine or the time of the teacher. The system is not meant to replace any aspect of the school curriculum – it is offered as a peripheral opportunity to students who identify with challenges and who want to be rewarded for their extra effort. Participation in the program is always optional – only those students who voluntarily choose to participate will, in the long run, benefit from this program. Any student, regardless of prior academic performance, should be encouraged to participate as long as their interest is maintained.



ORGANIZATION OF THESE MATERIALS

Section I Description of the SUPERSTARS III Program

1. General Information
2. Information/checklist for principals
3. Information/checklist for assisting adults
4. Information for teachers
5. Letter to participating students and their parents.

Section II Student worksheets for SUPERSTARS III

SUPERSTARS III *Jupiter, XXII* Name: _____
(This shows my own thinking.)

★★1. If the 24th day of the month falls on Saturday, on what day did the 6th fall?

Answer: _____

★★★2. There are 4 six-packs of soda in a case. Chris bought 12 of a case and gave 13 of what he had to Dana. How many cans of soda does Chris have left?

Answer: _____ cans

★★★3. Together, 6 boys and 12 girls weigh 1050 pounds. The boys all weigh the same x pounds. Each girl weighs 55 pounds. What is the weight of one boy?


bbbbbb gggggggggggg

Answer: $x =$ _____ pounds

★★4. The sum of 3 consecutive numbers is 276. What are the numbers?
(Consecutive numbers differ by one: example: 8, 9, and 10)


Answer: _____, _____, and _____

★★5. If a family of 12 spiders wore shoes, how many pairs of shoes would they need?

 Answer: _____ pairs.

★★6. A tropical storm passed through the town. It began to rain Monday morning at 8:45 AM and did not stop until the next day at 2:30 PM. How long did it rain?

Answer: _____ hours and _____ minutes




★★7. There are 3 cars, 4 bicycles, 2 tricycles, and 1 unicycle in the neighbor's garage. How many wheels are there in all? Forget about any "spare tires"!

Answer: _____ wheels

★★8. Rosemary bought a sweater on sale for \$6.98. She also bought a skirt for \$9.99. She paid an additional \$1.19 for sales tax. Rosemary gave the sales person a \$20 bill. How much change should she receive?

Answer: _____



★★★9. Study this pattern. 25 and also 32 would be in column E, if the pattern continued.

a. In which column would 100 appear?
b. In which column would 500 appear?
c. In which column would 1000 appear?

21	22						
14	15	16	17	18	19	20	
7	8	9	10	11	12	13	
0	1	2	3	4	5	6	
A	B	C	D	E	F	G	

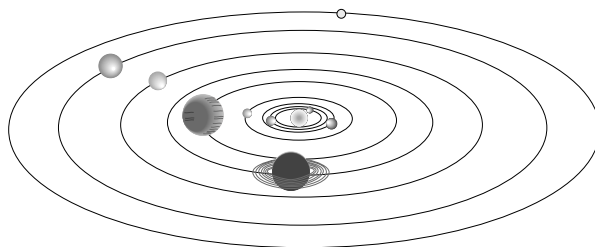
Section III Commentary for student worksheets for SUPERSTARS III

Commentary
Jupiter, XXII

1. **(Tuesday)** Students can use a calendar or make a chart with "Su, M, T, W, Th, F, Sa" at the top and begin numbering backward putting 24 under Saturday. They may also realize that the 17th and 10th fall on Saturdays and count back from the 10th.
2. **(8)** Students can solve this problem by drawing a diagram or by visualizing 24 colas. $1/2$ of 24 is 12, and $1/3$ of 12 is 4. Therefore Chris gave away 4 of the 12 sodas, leaving 8.
3. **(65)** Students will probably solve this by first finding the total weight of the 12 girls: $12 \times 55 = 660$ pounds. Then they will compute $1050 - 660 = 390$ pounds, the weight of the 6 boys. Then $390 \div 6 = 65$ pounds per boy.
4. **(91, 92, 93)** Students may use the *guess-check-revise* method. Some students might know that the numbers they seek are about $1/3$ of the total, and approximate the numbers by dividing 276 by 3. This gives 92, which is the middle number.
5. **(48)** Students may want to draw a picture to help solve this problem. Spiders have 8 legs, which would be 4 pairs of shoes per spider.
6. **(29 hours and 45 minutes)** Most students will realize that from 8:45 AM to 8:45 AM the next day, is 24 hours. They will then "add on" 5 additional hours to get to 9:45, 10:45, 11:45, 12:45, and 1:45, and then 45 minutes to get to 2:30 PM.
7. **(27)** There would be 12 wheels on the 3 cars, 8 on the 4 bicycles, 6 on the 2 tricycles, and 1 on the unicycle.
8. **(\$1.84)** Students will probably add \$6.98 and \$9.99 to get \$16.97, then add the tax of \$1.19 to get \$18.16. They will subtract this amount from \$20.
9. **(a, C; b, D; c, G)** Hopefully, students will notice that the multiples of 7 are in column A and use this fact to get "close to" the numbers 100, 500, and 1,000. Ninety-eight (14×7) is the closest multiple of 7 less than 100, so 98 would be in column A, forcing 100 to be in column C. Likewise, 497 or 71×7 is in column A, putting 500 in column D. Finally, 994 or 142×7 is in A, indicating that 1000 is in column G.

SUPERSTARS III: General Information

SUPERSTARS III is a K-8 program designed as an enrichment opportunity for self-directed learners in mathematics. The levels of the program are named for the planets in our solar system:



Kindergarten	Mercury	Fourth Grade	Jupiter
First Grade	Venus	Fifth Grade	Saturn
Second Grade	Earth	Sixth Grade	Uranus
Third Grade	Mars	Seventh Grade	Neptune
	Eighth Grade	Pluto	

Students of all ability levels choose on their own to participate in **SUPERSTARS III**. Seeing their names displayed in a prominent place in the school, with a string of stars indicating their success, is one reward students receive for their extra work. In some cases the school may decide to enhance this basic system by awarding certificates of achievement or some other form of recognition to highlight certain levels of success or participation in the **SUPERSTARS III** program.

SUPERSTARS III can function in a school in a number of different ways. A “tried and true” way is for assisting adults (volunteers, aides, etc.) to manage the program for the entire school, with support provided by school administrators and classroom teachers. This system has been adopted at the school level, with varying degrees of success, over the years. The basic model for conducting **SUPERSTARS III** is discussed below, with variations described on the next page.

The basic model

The basic model for **SUPERSTARS III** is for a school to establish a weekly cycle at the beginning of the academic year according to the following guidelines:

On Monday of each week student worksheets are distributed by the assisting adults to students in the program. Students have until Friday to complete the problems working entirely on their own. On Friday the classroom teacher holds a brief problem-solving session for the students in the program. The more difficult problems on the worksheet are discussed with students describing their thinking about strategies to solve the problems. They do not share solutions, only strategies.

Students receive double credit for those problems they have successfully completed prior to the problem-solving session, and regular credit for those they complete successfully over the week-end. On Monday all papers are handed in, checked by the assisting adult, and stars are posted for problems successfully completed. This completes one cycle of the **SUPERSTARS III** program.

SUPERSTARS III is not for every child -- it is only for those who are self-motivated and who are not easily frustrated by challenging situations. This does not diminish the value of the program, but rather makes us realize that there are children of all ability and socio-economic levels who are self-directed learners and who need challenges beyond those of the regular school day. These children will shine in **SUPERSTARS III**.

Variations of the basic model

The first variation that has been used successfully retains the weekly cycle and assisting adult role from the basic model. The teacher however, involves the entire class in the problem-solving discussions. For example, the teacher might select the four most difficult problems on the worksheet (indicated by three or four stars) and work a “parallel” problem with the entire class to open the mathematics lesson on Tuesday through Friday. Using this variation, all students are exposed to the problem-solving strategies, but only those who have chosen to participate in **SUPERSTARS III** will complete and turn in the worksheet on Monday.

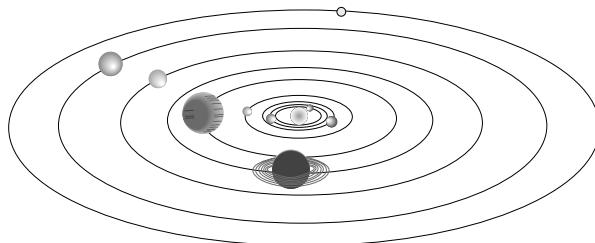
A second variation has the assisting adult manage the entire program, including the Friday problem-solving session. This method has been used in situations where teachers lacked commitment to the program and thus implemented it inconsistently. In such cases, the assisting adult must have a progressive view of what constitutes problem solving in elementary mathematics. They should also receive extra assistance from the administration to ensure that students are released from class and that the cycles proceed smoothly.

Yet another variation is for a parent to manage **SUPERSTARS III** at home for his or her own child. The basic rules are the same -- a child gets the worksheet once a week and time to work the problems alone. The parent sets a night to listen to the way the child thought about each problem, offering suggestions or strategies only when the child is unable to proceed. The reward system is basically the same, stars on a chart, but can be enhanced by doing something special with the child, such as a trip to the museum or to a sporting event when the child reaches certain levels of success. If this method is adopted, the parent must not try to teach the child, but rather to stimulate discussion of problem-solving strategies. **SUPERSTARS III** is not a program for adults to teach children how to think.

Other variations exist. The basic model as stated is the best, all other factors being equal, for reaching more children in a consistent fashion than any of the other methods. However, we encourage individual schools, teachers, or parents to get some version started; some starlight is better than none.

SUPERSTARS III: Information for Principals

SUPERSTARS III is a K-8 enrichment package for mathematics designed to be managed by volunteer assisting adults with coordinated support from the classroom teacher and school administrators. The purpose of the program is to give self-motivated students of all ability levels a chance to extend themselves beyond the standard mathematics curriculum. The complete set of materials comes in nine packages, one for each grade K-8. The grade levels are identified by the names of the nine planets in our solar system and their order from the sun:



Mercury - Kindergarten

Earth - Second Grade

Jupiter - Fourth Grade

Uranus - Sixth Grade

Venus - First Grade

Mars - Third Grade

Saturn - Fifth Grade

Neptune - Seventh Grade

Pluto - Eighth Grade.

Your support is vital if this program is to succeed. As the school administrator, you need to stay in close contact with the **SUPERSTARS III** program. A “checklist for success” follows:

⌘ Become familiar with the philosophy and component parts of the program.

⌘ Introduce **SUPERSTARS III** to the faculty early in the school year. Ensure that teachers understand the philosophy of the program and have copies of the student worksheets and commentaries appropriate for their grade levels.

⌘ Speak to parents at your school’s first open house of the year, explaining the purpose of **SUPERSTARS III** and the long term value of children working independently on challenging problems.

⌘ Recruit several assisting adults (PTA members, aides, senior citizens, business partners, church members, etc.) who are enthusiastic, dependable people who are willing to manage the program. Early in the academic year, meet with these assisting adults to plan such details as:

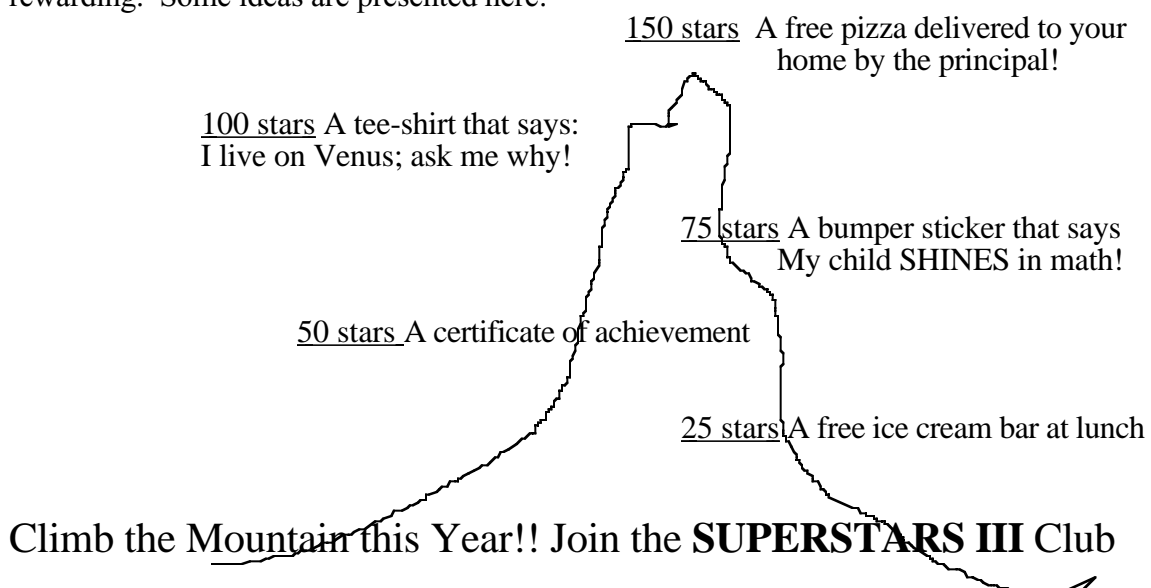
✓ A prominent place and format for the STAR CHART.

- ✓ A designated time and place each Monday and Friday for the assisting adults to be in school to meet with students, distribute and collect worksheets, and post stars.
- ✓ A system for the activity sheets to be duplicated each week.
- ✓ A plan for extra incentives for accumulating stars. (“World records” to be kept from year-to-year, a celebration day planned for the end of school, prizes earned by students for attaining certain levels of success -- see the diagram below for examples.)
- ✓ A schedule for the initiation of the program and a decision as to a “start over” point later in the academic year. Review the school calendar and only use weeks that are at least four days long. If there is not enough time in the year to complete all the activity sheets, decide which to eliminate or on a plan to “double up.”
- ✓ A **SUPERSTARS III** cap, name badge, tee-shirt, or other distinction for volunteers, if possible.

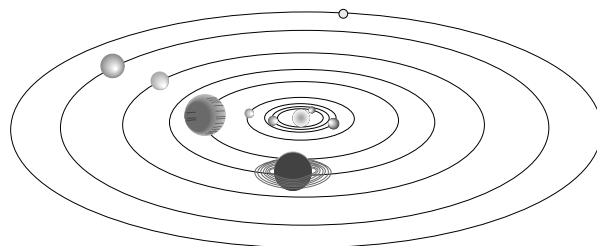
⌞ Monitor the program every two weeks to get ahead of unforeseen difficulties. Administrators need to be highly visible and supportive for **SUPERSTARS** to succeed.

SUPERSTARS III is an optional program for students. It should be available to any student who wants to participate, regardless of prior success in mathematics. Typically, a large number of students will begin the program, but a majority will lose interest. A significant number however, will continue their efforts over the life of the program. This is normal and simply means that **SUPERSTARS III** is successfully addressing the needs of the self-directed learner.

Visual reminders help children see this mathematics program is challenging and rewarding. Some ideas are presented here:



SUPERSTARS III: Information for Assisting Adults



SUPERSTARS III is designed to give assisting adults a well-defined role to play in the school's mathematics program. The success of **SUPERSTARS III** depends upon a team effort among teachers, administrators, parents and you. Reliability and punctuality are important - students will quickly come to depend upon you to be there as scheduled, to check their papers and post their stars, and to listen to alternate strategies and interpretations of problems to help them arrive at solutions. If possible, wear an outfit or badge that fits with the **SUPERSTARS III** theme or logo; students will soon identify you as an important person in their school.



SUPERSTARS III works on a weekly cycle. Each Monday you will collect the worksheets from the previous week and distribute new worksheets to the participating students, all from your **SUPERSTARS III** area of the school. Allow students to see the answers to the problems, discuss any for which their answers differ and allow them credit if their interpretation and reasoning are sound. After checking all the work, you will post the stars earned by students on the STAR CHART.



Participating students have from Monday until Friday to work the problems entirely on their own -- the only help they should receive during that time is for someone to read the problems to them. On Friday the teacher will host a problem-solving session in the classroom where students will describe the strategies they used to approach the more difficult problems. Students who have successfully completed problems before this session will receive double points for their efforts. The teacher's initials on the worksheet will help you identify those problems. The students then have the week-end to complete or correct their problems and turn them in on Monday. All the correct problems thus completed will receive the indicated number of stars.



Be creative when designing your STAR CHART. The basic method of posting stars individually is a good way to begin but eventually you will want a more efficient system. Color coding by grade level, or posting just one star each week with a number in its center are ideas to consider. You may wish to personalize the chart and the entire **SUPERSTARS III** center with student pictures, “smiling faces”, a logo, seasonal theme or some other feature that has a mathematical flavor. Occasionally feature a reward for each child such as a cookie or a hand stamp in the shape of a star just for turning in the worksheet. You are helping enthusiastic students develop high-level thinking skills -- be creative and enjoy your role!

Checklist for assisting adults:

⌘ Plan the following with the principal:

✓ A prominent place and format for the

★ STAR CHART ★

✓ The time and place for you to collect, check, and distribute worksheets.

✓ A system for duplicating worksheets each week which ensures legible copies. Also a secure storage area for masters and other materials.

✓ Any additional incentives (“world records,” stickers, coupons, pencils, tee-shirts, etc.) that will be part of the system for rewarding levels of achievement in **SUPERSTARS III**.



⌘ Make the **SUPERSTARS III** center a happy place. Use bright colors, smiles, and cheerful expressions. Show confidence, friendliness, and encouragement to students.



⌘ Collect the letters that are sent home prior to the first worksheet. These need to be signed by each student and a parent. If, in the future, you have evidence that the work submitted does not represent the thinking of the student, discuss the situation with the classroom teacher. These situations are best handled individually, confidentially and in a firm, consistent manner.



⌞ Check the worksheets from the previous week uniformly. If you give partial credit for a problem with several parts do so in a fair way that can be understood by the students. Do not award partial credit for problems with only one answer.



⌞ Have answer sheets available and encourage students to look at the solutions when they submit their worksheets. Allow them to explain their strategy or interpretation if they have arrived at a different answer. Award full credit if they show a unique and plausible interpretation of a problem and follow sound logic in arriving at their response.



⌞ Leave extra worksheets with the classroom teacher for participating students who were absent on Monday. Accept a late-arriving worksheet only if the student was absent on Monday. If a student's name is missing or in the wrong place on the worksheet, check the paper but award stars to "No Name" on the STAR CHART. Adhering strictly to these rules will rapidly teach responsibility to the students and keep your work manageable.

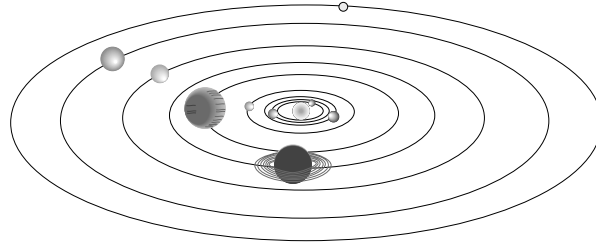


⌞ Keep all returned worksheets. As the same problems are used year after year, and many students have siblings who may later participate in **SUPERSTARS III**, it is important that worksheets do not circulate.



⌞ On weeks when **SUPERSTARS III** is not available post a notice such as "No star problems this week, but please come back after vacation for more!"

SUPERSTARS III: Information for Teachers



SUPERSTARS III is a program designed to complement your regular classroom mathematics curriculum. It offers a supplemental opportunity for students to practice mathematics skills appropriate for their grade level and at the same time to engage in challenging problem-solving activities. It is an additional challenge to those students who are self-directed learners providing them with an academic extracurricular activity.



Your involvement is essentially as a teacher. **SUPERSTARS III** will remain special to students if it is managed by someone outside of the classroom and if the teacher is viewed as a facilitator in the system, rather than as the authority figure. Your primary role is to monitor the system in your own classroom and to host a brief problem-solving session for **SUPERSTARS III** students on Friday of each week. You will also need to release the participating students from your class at a set time on Mondays to enable them to turn in completed work and receive new problem sets. You might make a special pin or banner for Mondays and Fridays to remind students that those days are special.

<p>SUPERSTARS III <i>Jupiter, XXII</i></p> <p>Name: _____ <i>(This shows my own thinking.)</i></p> <p>★★1. If the 24th day of the month falls on Saturday, on what day did the 6th fall?</p> <p style="text-align: center;">Answer: _____</p> <p>★★★2. There are 4 six-packs of sodas in a case. Chris bought 12 of a case and gave 13 of what he had to Dana. How many cans of soda does Chris have left?</p> <p style="text-align: center;">Answer: _____ cans</p> <p>★★★3. Together, 6 boys and 12 girls weigh 1050 pounds. The boys all weigh the same $-x$ pounds. Each girl weighs 55 pounds. What is the weight of one boy?</p> <p style="text-align: center;">bbbbbb gggggggggg Answer: $x =$ _____ pounds</p> <p>★★4. The sum of 3 consecutive numbers is 276. What are the numbers? <i>(Consecutive numbers differ by one: example: 8, 9, and 10)</i></p> <p style="text-align: center;">Answer: _____, _____, and _____</p> <p>★★5. If a family of 12 spiders wore shoes, how many <i>pairs</i> of shoes would they need?</p> <p style="text-align: center;"> Answer: _____ pairs.</p>	
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<p>Commentary <i>Jupiter, XXII</i></p> <p>1. (Tuesday) Students can use a calendar or make a chart with "Su, M, T, W, Th, F, Sa" at the top and begin numbering backward putting 24 under Saturday. They may also realize that the 17th and 10th fall on Saturdays and count back from the 10th.</p> <p>2. (8) Students can solve this problem by drawing a diagram or by visualizing 24 colas. $1/2$ of 24 is 12, and $1/3$ of 12 is 4. Therefore Chris gave away 4 of the 12 sodas, leaving 8.</p> <p>3. (65) Students will probably solve this by first finding the total weight of the 12 girls: $12 \times 55 = 660$ pounds. Then they will compute $1050 - 660 = 390$ pounds, the weight of the 6 boys. Then $390 \div 6 = 65$ pounds per boy.</p> <p>4. (91, 92, 93) Students may use the <i>guess-check-revise</i> method. Some students might know that the numbers they seek are about $1/3$ of the total, and approximate the numbers by dividing 276 by 3. This gives 92, which is the middle number.</p> <p>5. (48) Students may want to draw a picture to help solve this problem. Spiders have 8 legs, which would be 4 pairs of shoes per spider.</p> <p>6. (29 hours and 45 minutes) Most students will realize that from 8:45 AM to 8:45 AM the next day, is 24 hours. They will then "add on" 5 additional hours to get to 9:45, 10:45, 11:45, 12:45, and 1:45, and then 45 minutes to get to 2:30 PM.</p> <p>7. (27) There would be 12 wheels on the 3 cars, 8 on the 4 bicycles, 6 on the 2 tricycles, and 1 on the unicycle.</p> <p>8. (\$1.84) Students will probably add $\\$6.98$ and $\\$9.99$ to get $\\$16.97$, then add the tax of $\\$1.19$ to get $\\$18.16$. They will subtract this amount from $\\$20$.</p> <p>9. (a, c; b, D; e, G) Hopefully, students will notice that the multiples of 7 are in column A and use this fact to get "close to" the numbers 100, 500, and 1,000. Ninety-eight (14×7) is the closest multiple of 7 less than 100, so 98 would be in column A, forcing 100 to be in column C. Likewise, 497 or 71×7 is in column A, putting 500 in column D. Finally, 994 or 142×7 is in A, indicating that 1000 is in column G.</p>

Each student worksheet has an accompanying commentary page. This sheet provides hints on parallel problems which you might use in the Friday problem-solving session. It is important that students participate actively in this session, and that you

solicit from them their unique and varied approaches to the problems discussed. Only after students have presented their ideas should you provide guidance on the problems and then only if they are having difficulty. Even though there is a commentary provided for each problem, you will have to decide which two to four problems you will cover during this brief session. Concentrate on those which provide a new or unfamiliar strategy. The problem-solving session should last no more than 15 minutes.



Do not be disappointed if a large number of your students begin **SUPERSTARS III** and then significant numbers drop out after a few weeks. This is normal; problem solving requires a great deal of effort and not every student is ready for this challenge. On the other hand, you will notice that some students will choose to stay with **SUPERSTARS III** week after week even though they are not as successful as other students at earning stars. Their participation should be encouraged as they are certainly learning from the experience. Under no circumstances should **SUPERSTARS III** be reserved only for the advanced students in your class.



As a purely practical consideration, students are not to discuss the problems among themselves or with their families prior to the Friday cooperative group session. This allows the “think time” necessary for students to develop into independent thinkers; it also prevents students from earning stars for work that is basically someone else’s -- the surest way to disrupt the entire **SUPERSTARS III** program. As the teacher you must monitor this in your classroom and ensure that students abide by the established rule.



It is important that you understand and support the overall philosophy of **SUPERSTARS III**. Do not worry if students encounter problems for which they have not been prepared in class -- such is the nature of true problem solving. Do not provide remedial instruction to ensure that students master certain types of problems. They will meet these same problem types repeatedly in the program. They will likely learn them on their own and from listening to other students at the problem-solving sessions. Enjoy what the students can do and don’t worry about what they can’t do. Read the general information and philosophy of the program to see how your role fits into the complete system.

Here are some thoughts you might find useful in your support for **SUPERSTARS III**:



⌘ Allow your students to leave the classroom at the designated time on Mondays to turn in their worksheets and pick up new ones.



⌘ Read each week's worksheet and feel free to structure classroom activities that parallel those in the **SUPERSTARS III** problems.



⌘ During the school week students may be allowed to work on their **SUPERSTARS III** problems during their free time, but the only help they may receive is for someone to read the problems to them. Give the students one warning if you find them discussing the worksheets, and take away their papers for the next violation. If it happens another time, suspend them from the program for a month.



⌘ At the Friday problem-solving sessions remember these points:

- Students come to this session with their worksheets, but without pencils.
- The session should be brief -- 15 minutes at most. Discuss only the two to four most difficult problems.
- Help students summarize their own approaches to the problems in a non-judgmental fashion. Offer your own approach last, and only if it is different from the students' strategies. Do not allow answers to be given to the problems.
- End the session by encouraging students to complete the problems over the weekend. Put your initials beside any problem discussed in class which a student has already successfully completed. The assisting adult will award double stars for these.



⌈ Remember that part of the **SUPERSTARS III** philosophy is that students learn responsibility by following the rules of the system. If participation is important to them they will adhere to the rules about where their names go on each paper, no credit awarded if they forget their paper on Monday, and no talking about problems prior to the problem-solving session.



⌈ Enjoy **SUPERSTARS III**. Students will impress you with their ability to think and their creative ways to solve problems that appear to be above their level or beyond their experience.



Dear Student,

Welcome to *Math Superstars*, a program designed to enhance your journey through mathematics. By prepared to face challenging problems which require thinking! As you work through the system you will experience many types of problems, stretching and expanding your brainpower in many exciting ways!

Expect to receive one worksheet each Wednesday. You will have one week to think about the problems and come up with strategies for their solutions. The thinking and solutions must be **YOUR VERY OWN!!!** Once a week you will attend a meeting to discuss the most challenging problems.

Your journey will be recorded by charting the stars you earn. Each problem is ranked according to its level of difficulty. The more stars you see beside a problem, the higher its level of difficulty and, of course, the more stars you can earn for solving it. A record of your star accumulation will be posted on the Math Superstars bulletin board outside the main office.

Your signature is just the beginning.

Good luck as you embark upon this mathematical adventure! The rewards will last a lifetime!



I am ready to begin the *Math Superstars* program. All of the answers I submit will represent my own thinking.

Name: _____





Dear Parents,

Welcome to *Math Superstars*, a program designed to enhance your child's journey through mathematics. By expressing an interest in challenging problem solving experiences, your student has taken the first step toward becoming an independent learner who is willing to address many types of problems.

On Wednesday mornings, 7:30-7:45, your child will meet with a small group of fellow students and a volunteer parent leader. A worksheet will be distributed to each child. Each problem in the set is ranked according to its level of difficulty. As the number of stars increases, so does the level of difficulty and the earned stars to be awarded.

The problems will be discussed at the following Wednesday meeting and the worksheet will be submitted. Your role in the program is to encourage and facilitate problem solving. Feel free to offer guidance toward certain strategies, to read the problems to your child, but please do not give them the answers. In order for this program to be effective, the students must work independently. The thinking must be their own!

It is normal for a student not to be able to complete every problem on every worksheet. The process of interpreting, understanding, and trying different strategies is valuable in the attainment of mathematical power. Remember, no student is expected to know the answer to every problem.

Thank you for allowing your child to embark upon this mathematical adventure; the rewards should last a lifetime!



Parent signature: _____

Parent/Guardian of _____

