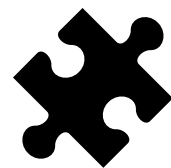
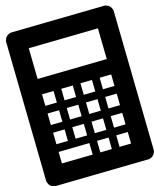


SHAYLA K. HEAVNER

GAMING AND MEDIA DESIGN

PLAY DIARY


SPRING 2018



THE FACTS

TITLE	<i>Algebra Meltdown</i>		MY RATING (OUT OF 5)	★★★★☆
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>Blue Duck Education Ltd</i>	
GENRE	<i>Educational /Math /Algebra</i>		DATE	<i>2018</i>
ACCESSED AT:	https://www.mangahigh.com/games/algebrameltdown			

THE DETAILS

IMAGE:	SUMMARY
	<p><i>Players must help scientist create atoms for a special mission, by combining numbers to create the vale each scientist needs. It is a fast-paced race to solve algebra equations in order to complete the mission!</i></p>
EDUCATIONAL VALUE	<i>Fact Fluency / Using Negatives / Input/Output</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Great images (graphics)</i> ❖ <i>Helps students practice mental math</i> ❖ <i>Highly Varied to keep gamers engaged</i> 	<ul style="list-style-type: none"> ❖ <i>Very Fast Paced</i> ❖ <i>Only had option to begin on "Easy"</i> ❖ <i>Doesn't clearly connect algebra skills</i>

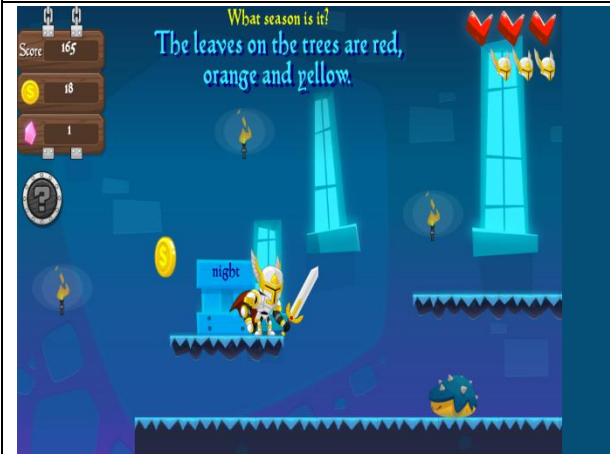
REFLECTION

This was an interesting game! The graphics were top-notch, and it didn't seem like a cheap or free game at all. However, after playing for a while it was clear that the game has some flaws. It is very fast paced, even with a bachelor's in mathematics I had trouble keeping up at times. I think this could be a major pit fall as many younger students would feel like it is much too hard for beginners. In addition, while the algebraic equation was provided, the game didn't make any use of it. Thus, it became more like a facts fluency game rather than an algebra game. Many times, because the operations were difficult, I found myself solving the equation in order to keep up. This is great! However, it is only because I knew how to do so. Incorporating this concept into the actual game would greatly improve its worth.

THE FACTS

TITLE	<i>Sir Readalot</i>		MY RATING (OUT OF 5)	★ ★ ★ ★ ☆	
PLATFORM	<i>Online/Computer/Tablet</i>	PUBLISHER	<i>RoomRecess.com</i>		
GENRE	<i>Educational / Reading / Phonics / Comprehension</i>			DATE	<i>N/A</i>
ACCESSED AT:	http://www.roomrecess.com/mobile/SirReadalot/play.html				

THE DETAILS

IMAGE:	SUMMARY
	<p><i>Players control Sir Readalot and help him in his journey by answering reading questions. Player can walk jump and attack to find and choose the correct response. Along their mission they locate keys, and gear to help protect themselves from monsters attempting to thwart his journey.</i></p>
EDUCATIONAL VALUE	<i>Reading / Comprehension / Syllables</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Easy to play</i> ❖ <i>Multiple topics such as "Fact or Opinion", "Context Clues" & "Syllables"</i> 	<ul style="list-style-type: none"> ❖ <i>Slow Gameplay</i> ❖ <i>Only engaging for short period</i> ❖ <i>Limited Vocabulary</i>


REFLECTION

Sir Readalot was an easy game to find and play. It would be great for 1st and 2nd graders learning to master reading topics. However, the gameplay is slow, and children can become bored quickly. In addition, many words were repeated implying a lack of rich material. In the "Draw Conclusion" section, questions were provided, and players must find the correct word to answer while exploring the world, jumping and avoiding monsters. This is a great activity for beginning readers to practice their skills while also thinking critically to determine the goal of the passage. Overall, this game would be great for a lesson add-on after tackling similar content in class.

THE FACTS

TITLE	<i>Papa's Pizzeria</i>		MY RATING (OUT OF 5)	★ ★ ★ ★ ☆
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>Flipline Studios</i>	
GENRE	<i>Educational / Mathematics / Fractions</i>			DATE <i>2007</i>
ACCESSED AT:	http://www.hoodamath.com/games/papaspizzeria.html			

THE DETAILS

IMAGE:	SUMMARY
	<p>Players help Roy to run his father's pizzeria. They must take orders, apply toppings while paying attention to proportion, bake and slice the pizza into fractions all to appease the customer and receive tips.</p>
EDUCATIONAL VALUE	<i>Fractions / Proportions / Multi-tasking</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Great Graphics</i> ❖ <i>Fun to Play</i> ❖ <i>Players must focus on time management, dividing into fractions & proportions in gameplay</i> 	<ul style="list-style-type: none"> ❖ <i>Difficult to Conquer</i> ❖ <i>Understanding gameplay takes time</i> ❖ <i>Cutting the pizza into fractions connects little to actual fraction concepts.</i>

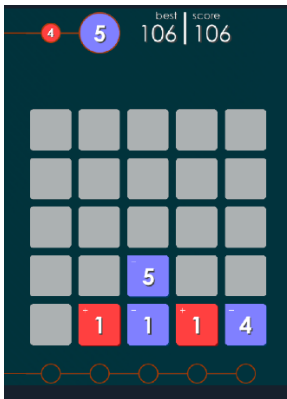
REFLECTION

Papa's Pizzeria is quite fun to play! I can see many students becoming immersed in the game. However, while students must connect the number of toppings to the number of slices and divide evenly, there is little connection to fractional notation. Cutting the slices helps students to draw equal parts, but other concepts like adding, subtracting and simplifying fractions are not included. Should the player also have to write the fraction, the game would be greatly improved. The game is a bit complicated to learn, which may discourage first time users. However, the ability to time manage and multitask is a great skill that connects to business skills as well. There are also many niches of gameplay to keep it interesting, like customer profiles and badges.

THE FACTS

TITLE	<i>B! Side</i>		MY RATING (OUT OF 5)	★★★★☆	
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>Coolmath.com LLC</i>		
GENRE	<i>Educational / Math / Logic</i>			DATE	<i>2018</i>
ACCESSED AT:	http://www.coolmath-games.com/O-b-side				

THE DETAILS

IMAGE:	SUMMARY
	<p><i>In this Tetris-like game players use red and purple blocks to create rows or columns that equal zero. Dropping red blocks adds to the total while purple blocks subtract. The goal is to avoid filling the screen while zeroing out as many rows and columns as possible.</i></p>
EDUCATIONAL VALUE	<i>Addition / Subtraction / Fluency / Logic</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Slow Pace good for beginners</i> ❖ <i>Easy to Play</i> ❖ <i>Promotes multitasking and planning</i> 	<ul style="list-style-type: none"> ❖ <i>Slow game play limits age and skill level</i> ❖ <i>Not a long-term game, players can get bored quickly</i>


REFLECTION

I think that the idea of this game is superb. It combines ideas from two well know and popular games, Tetris and Sudoku. Players must decide the best place to drop the numbers in order for a row or column to sum to zero. It is great for beginner mathematicians as it promotes figuring out strings of sums mentally. However, the slow game play (there is no timer or function that drops the number automatically in a certain number of seconds) is a miss as this would make it more challenging and addicting to play.

THE FACTS

TITLE	<i>Math Buzz</i>		MY RATING (OUT OF 5)	★ ★ ★ ★ ★	
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>TeachMe, Inc</i>		
GENRE	<i>Educational / Math / Environment</i>			DATE	<i>2018</i>
ACCESSED AT:	https://www.mathgames.com/play/mathbuzz.html				

THE DETAILS

IMAGE:	SUMMARY
	<p><i>Use Math to protect the queen bee, collect pollen and rescue trapped bees. Five worlds offer game play variation, and multiple levels of math ensure fun for everyone.</i></p>
EDUCATIONAL VALUE	<i>Mathematics Practice at all levels</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Able to choose grade level</i> ❖ <i>Cross-Curricular connects to bee habitats, function, pollination etc.</i> ❖ <i>Great Graphics</i> 	<ul style="list-style-type: none"> ❖ <i>Very Little Game Play</i> ❖ <i>Not Interactive</i> ❖ <i>Similar to Quiz-Type game</i> ❖ <i>Not fully realized</i>


REFLECTION

I loved the idea of this game. I was so impressed with the amount of material available for play. Grades K through 8 are available with 12 possible topics per grade. I also like the cross-curricular concept, especially in a time when bee population is so important. That being said it was a bit disappointing. The action of protecting the queen and pollenating is simultaneous to answering questions so it just appears as background graphics and the game plays more like a quiz where players just answer questions. There is no autonomy or ability to control your swarm. This is a great idea, just not fully recognized.

THE FACTS

TITLE	<i>Alien Angles</i>		MY RATING (OUT OF 5)	★★★★☆	
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>Math Playground LLC</i>		
GENRE	<i>Education / Mathematics / Geometry</i>		DATE	<i>2018</i>	
ACCESSED AT:	https://www.mathplayground.com/alienangles.html				

THE DETAILS

IMAGE:	SUMMARY
	<p><i>Friendly aliens are lost, and players must help rescue them. To this, players must estimate angles within 5° to launch the rescue ship to the correct place.</i></p>
EDUCATIONAL VALUE	<i>Angle Measure / Estimation / Geometry</i>


MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Surprisingly Challenging</i> ❖ <i>Very fun to play</i> ❖ <i>High Educational Value</i> 	<ul style="list-style-type: none"> ❖ <i>Difficult Angles</i> ❖ <i>Slow game play</i> ❖ <i>Limited interaction</i>

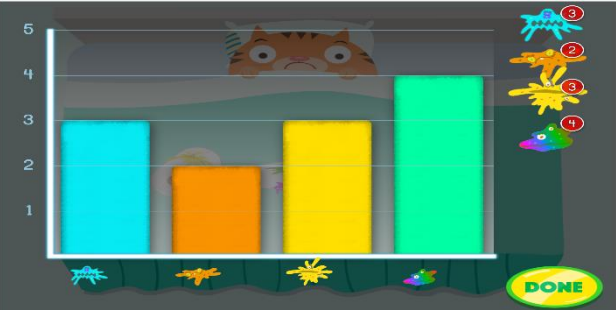
REFLECTION

I really enjoyed this game. It reminds me of the old golf game where you have to get the correct angle and force to hit the ball near the hole. The game play is slow, and the graphics are minimal, but it will entice players who like to get things perfect. I like the idea of understanding how to estimate angles, but in my experience, students need to know the basic angles and use a protractor or other tools to find intermediate angles. Thus, I am unsure how this would fit into a curriculum other than getting students familiar with the concept of angles initially.

THE FACTS

TITLE	<i>Bar Graphing with Roly</i>	MY RATING (OUT OF 5)		
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>Education.com Inc</i>	
GENRE	<i>Mathematics / Graphing / Bar Graphs</i>	DATE	<i>2018</i>	
ACCESSED AT:	https://www.education.com/game/graphing-germs/			

THE DETAILS

IMAGE:	SUMMARY
	<p><i>Roly is sick and needs your help to stop germs from spreading. Use toilet paper to catch the germs as they drop to stop the spread of germs. Then graph the germs collected using bar graphing tools.</i></p>
EDUCATIONAL VALUE	<i>Data collection and Representation</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Clear curriculum connection CCS-4-MD-B-4</i> ❖ <i>Interactive game play</i> ❖ <i>Cross-Curricular opportunity with health.</i> 	<ul style="list-style-type: none"> ❖ <i>Advanced mouse control is needed to collect germs</i> ❖ <i>Inconsistent storyline</i> ❖ <i>Gross graphics may not appeal to all children</i>

REFLECTION

A major pro in this game is the site Education.com. The game is prefaced with clear curriculum connections, the ability to assign the game to students directly, and links to other resources such as worksheets to reinforce the game content. The game play is great in that players first play a normal arcade style game attempting to catch the germs. Then the mathematics content is reinforced through classifying and graphing what was collected. There is also the opportunity to make cross-curricular connections with health and discuss how germs spread and measures students can take to ensure others don't get sick. The game would make for an easy lesson spark added to traditional instruction and even assign students one of the worksheets to take home and solidify the concept even more.

THE FACTS

TITLE	<i>Math Eggs: Factoring Numbers</i>		MY RATING (OUT OF 5)	★ ★ ★ ☆ ☆
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>PrimaryGames, Inc</i>	
GENRE	<i>Education / Math / Factoring</i>		DATE	<i>2000</i>
ACCESSED AT:	http://www.primarygames.com/math/matheggsfactors/			

THE DETAILS

IMAGE:	SUMMARY
	<p><i>Chickens throw eggs with number values. Players must catch only the eggs that represent factors of a given value. Begin with 3 lives, lose a life each time a correct factor is not caught.</i></p>
EDUCATIONAL VALUE	<i>Factoring / Number Theory</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Multiple levels of game play</i> ❖ <i>Bright colors</i> ❖ <i>Good Educational connection</i> 	<ul style="list-style-type: none"> ❖ <i>Website is riddled with confusing advertising that redirects to different websites</i>

REFLECTION

I like how this game offers different paces. It allows players to begin slowly to get the hang of the game and then move to faster levels to challenge learners and keep them interested. It requires quick thinking allowing students to achieve higher levels of understanding. Some mouse control is needed which may cause accidental errors. This would be a great game to incorporate as an end-of-class activity although each student would need their own device or rotation would be needed. The website is filled with ads making it easy to accidentally click away. Also, sometimes 2 factors appear simultaneously making it difficult to retrieve both eggs on Normal game play setting.

THE FACTS

TITLE	<i>Puppy Chase</i>	MY RATING (OUT OF 5)	★★★★★
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>Arcademics</i>
GENRE	<i>Educational / Mathematics / Fractions</i>	DATE	<i>2018</i>
ACCESSED AT:	http://www.abcya.com/fractions_to_decimals.htm		

THE DETAILS

IMAGE:	SUMMARY
 <p>The image shows a screenshot of the game 'Puppy Chase'. It features a race track with several colorful puppies (blue, red, yellow) competing. A math question overlay is visible at the bottom, showing 'QUESTION 4' with the fraction $8\frac{1}{2}$ and four answer choices: 8.33, 8.3, 8.5, and 8.67. A small puppy icon and the text 'Player943' are also present.</p>	<p><i>Practice decimal conversions as puppy's race to the finish line. The quicker players respond, the faster their puppy runs! Play against others, or as a single player. Data is collected for educational use.</i></p>
EDUCATIONAL VALUE	<i>Conversion / fractions / decimals</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Multiplayer ability great for classrooms</i> ❖ <i>Data collection helpful to educators</i> ❖ <i>Fun, fast-paced game</i> 	<ul style="list-style-type: none"> ❖ <i>In order to win you must answer quickly so it is hard to actually watch the race and play</i>

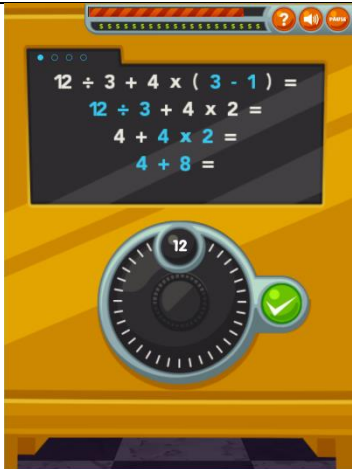
REFLECTION

This game was lots of fun. The ability to play on your own, or with others in a classroom or even join games in progress is a great aspect. My main issue while playing was I couldn't watch my progress and win, and you must pay attention to only answering the questions correctly and quickly to succeed. However, I do think children will have a lot of fun playing, especially against others, and build math fluency while doing so. Questions were well spaced with various difficult and data presented at end of game is a great asset to teachers.

THE FACTS

TITLE	<i>High-Stakes Heist</i>	MY RATING (OUT OF 5)	★ ★ ★ ★ ☆
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>ABCya.com, L.L.C</i>
GENRE	<i>Educational / Mathematics / Order of Operations</i>	DATE	<i>2018</i>
ACCESSED AT:	http://www.abcya.com/order_of_operations.htm		

THE DETAILS

IMAGE:	SUMMARY
	<p><i>Help Kit Foxtail retrieve the money the evil Duke von Wolfington stole! Players must crack open safes by solving Order of Operation questions. Time is limited, so players must be quick and accurate to win!</i></p>
EDUCATIONAL VALUE	<i>Fact fluency / Order of Operations</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Attractive storyline</i> ❖ <i>Challenging questions</i> ❖ <i>Easy to play</i> 	<ul style="list-style-type: none"> ❖ <i>Slow game play</i> ❖ <i>No incentive for repeated play</i> ❖ <i>Simple premise</i>


REFLECTION

This game was easy to play, challenging, and developed well in respect to the educational topic. The storyline is greatly developed; however, the game play is a bit simple. It would be a good game for free time in a computer or math course and provides good order of operation practice. As the game was not exciting, I doubt there is high likelihood of repeated play and continuing interest from students. But as a short add-on or lesson spark, it would provide a fun respite from traditional instruction.

THE FACTS

TITLE	<i>Ready, Jet, Go! Mission Earth</i>		MY RATING (OUT OF 5)	★★★★★	
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>PBS Kids</i>		
GENRE	<i>Educational / Science / Earth Science</i>			DATE	<i>2007</i>
ACCESSED AT:	http://pbskids.org/readyjetgo/games/mission/index.html				

THE DETAILS

IMAGE:	SUMMARY
	<i>In this game, players explore Earth. They must observe different earth elements and capture pictures. When an element is found, players are told information about it. They then send their pictures into space to teach aliens about the Earth.</i>
EDUCATIONAL VALUE	<i>Extensive. Plants, landforms, material, liquid v. gas, living v. non-living etc.</i>

MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Rich educational content</i> ❖ <i>Fun to play with increasing difficulty to engage learners</i> 	<ul style="list-style-type: none"> ❖ <i>At Level 3 game-play gets more difficult which can be harder for younger users to grasp.</i>


REFLECTION

This is an excellent game. The content is extremely varied. Players learn about plants, materials, landforms, water and much more. Cross-curricular opportunities are at every turn as the game incorporates senses, classification, states of matter as well as the traditional Earth-science concepts. It plays like a video game, players must jump, fly, switch between characters to use their needed abilities, and avoid falling while observing the features of our home planet. Adding the already developed storyline from the series "Ready. Jet. Go!" learners can connect to the characters and the idea of teaching aliens about our planet. Review questions are asked throughout, to ensure memory of the information provided. Information on choosing the right scientific tools is also incorporated. Overall, this is a superb game for anywhere from pre K to 2nd grade, although some help maybe need for younger students.

THE FACTS

TITLE	<i>Math Baseball</i>	MY RATING (OUT OF 5)	★ ★ ☆ ☆ ☆	
PLATFORM	<i>Online/Computer</i>	PUBLISHER	<i>Funbrain Holdings, LLC</i>	
GENRE	<i>Education / Math / Operations</i>		DATE	<i>2017</i>
ACCESSED AT:	https://www.funbrain.com/games/math-baseball			

THE DETAILS

IMAGE:	SUMMARY
<p>The Pitch Is:</p> $\begin{array}{r} 1 \\ + \quad \square \\ \hline 6 \end{array}$ <p style="text-align: center; color: green; font-weight: bold;">Swing!</p> <p style="text-align: center; font-size: small;">Level: Easy</p> 	<p><i>Play math baseball! Solve math questions correctly to hit the ball. Difficulty of the problem determines if you hit a single, double, triple or home run. Incorrect answers cause strikes.</i></p>
EDUCATIONAL VALUE	<i>Math Fluency / Operations</i>


MY THOUGHTS

PROS	CONS
<ul style="list-style-type: none"> ❖ <i>Ability to choose a range of skills and difficulty</i> ❖ <i>Good Concept</i> 	<ul style="list-style-type: none"> ❖ <i>Underwhelming graphics</i> ❖ <i>Plays more like quiz game</i> ❖ <i>Web design does not allow entire screen to be viewed</i>

REFLECTION

*This game has the potential to be amazing. Unfortunately, it is poorly constructed. The game window doesn't allow you to both see the questions and the score and the graphics as you must scroll. The graphics are underwhelming. Because of this, the game plays more like a math quiz where players simply answer questions. The game would be greatly improved with better graphics and design. Also, multiplayer access so students could play in teams to try to beat each other. *See Attached Game Idea*

THE FACTS

TITLE	<i>Math Baseball</i>		MY RATING (OUT OF 5)		
PLATFORM	<i>In Person</i>	CREATOR	<i>Shayla Heavner</i>		
GENRE	<i>Educational / Mathematics / Game</i>			DATE	<i>2018</i>

THE DETAILS

SUMMARY

Gamify math practice in the classroom! Using a board or transforming the room into a baseball diamond, have players separate into teams to play ball against each other.

EDUCATIONAL VALUE	<i>Fact fluency / Operation Practice</i>
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MY THOUGHTS

PROS

- ❖ *Easy to do*
- ❖ *Adds fun element to class*
- ❖ *Allows for easy practice of math facts*

CONS

- ❖ *Full Class period to play*
- ❖ *Only 1 player answers at a time so must keep all students attentive.*

HOW TO PLAY

Using premade packs of flash cards, or self-created ones assign point values of 1 through 4 to each card depending on difficulty. In addition, identify follow up questions for about ½ of cards. For instance, if the question is 4×12 , a sample follow up question could be, "what is one way to deconstruct this problem into smaller numbers to solve?" the answer being " $4 \times 4 \times 3$ " or " $4 \times 2 \times 6$ ", students may find it easier to complete " 8×6 " to get the answer as it is within the normal multiplication table. Also assign point values to the follow up questions such as -1 or "catch" depending on difficulty. Game is played as follows. The class is divided into 2 teams and chooses batting order. The questions are shuffled and instructor "pitches" the question to the person at bat. If they answer correctly they can "run" to the base depending on the point value assigned to the question. So, if it was a "1" they run to first base, while a "4" would be a home run. If the question has a follow up, instructor presents it to the opposing team. If they answer correctly, it signifies the other team has either "caught" the ball, causing an out, or they prevent the player from advancing as far. For instance, if the point value on the original question was "3" and the follow up was "-1" they batter would only advance to 2nd base. Play continues until the batting team has 3 outs, or they achieve 3 runs. Then game play is switched to allow the second team to bat. Instructors can choose the number of rounds or innings to play based on time constraints. Rather than 3 strikes, if the team at bat misses a question, this is automatically considered an out.