Middle School Math Night

INFORMATIONAL NIGHT ON GLENCOE MATH AND THE ALEKS ONLINE PROGRAM----WEDNESDAY, NOVEMBER 29TH

Grade 6-8 have two new components to the math program

Glencoe Math---McGraw-Hill



ALEKS Online Tutorial Program



Glencoe Math Site and eBook (Handout available at door)



ALEKS Online (aleks.com)



What is ALEKS?

- Assessment and LEarning in Knowledge Spaces is a Web-based, artificially intelligent assessment and learning system. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course. ALEKS then instructs the student on the topics she is most ready to learn. As a student works through a course, ALEKS periodically reassesses the student to ensure that topics learned are also retained. ALEKS avoids multiple-choice questions. A student who shows a high level of mastery of an ALEKS course will be successful in the actual course she is taking.
- ALEKS also provides the advantages of one-on-one instruction, 24/7, from virtually any Web-based computer for a fraction of the cost of a human tutor.

How does ALEKS work?

- ALEKS avoids multiple-choice questions and instead uses flexible and easy to use answer input tools that mimic what would be done with paper and pencil. When a student first logs on to ALEKS, a brief tutorial shows him how to use these ALEKS answer input tools. The student then begins the <u>ALEKS Assessment</u>. In a short period of time (about 45 minutes for most courses), ALEKS assesses the student's current course knowledge by asking him a small number of questions (usually 20-30). ALEKS chooses each question on the basis of his answers to all the previous questions. Each student, and therefore each set of assessment questions, is unique. It is impossible to predict the questions that will be asked.
- By the time the student has completed the assessment, ALEKS has developed a precise picture of her knowledge of the course, knowing which topics she has mastered and which topics she hasn't. The student's knowledge is represented by a multicolor pie chart.
- ▶ The pie chart is also the student's entry into the <u>Learning Mode</u>. In the Learning Mode, she is offered a choice of topics that she is ready to learn (she has the prerequisite knowledge to successfully learn these topics). When she chooses a topic to learn, ALEKS offers her practice problems that teach the topic. These problems have enough variability that a student can only get them consistently correct on understanding the core principle defining the topic. If a student doesn't understand a particular problem, she can always access a complete explanation. Once she can consistently get the problems for a given topic to learn. As the student learns new topics, ALEKS updates its map of the student's knowledge. The student can observe the most current summary of what she knows and what she is ready to learn.
- ► To ensure that topics learned are retained in long term memory, ALEKS periodically reassesses the student, using the results to adjust the student's knowledge of the course. Because students are forced to show mastery through mixed-question assessments that cannot be predicted, mastery of the ALEKS course means true mastery of the course.







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Dage	50.7 + 8.40

First, we write the numbers so the <u>decimal points</u> are lined up.

 $\begin{array}{r}
50.7 \\
+ 8.46 \\
\uparrow
\end{array}$ The decimal points are lined up.

We write a zero at the end of $50.7\ \mathrm{so}$ the numbers end in the same place.

50.70 + 8.46

00 EXPLANATION

Then we add just like we would with <u>whole numbers</u>. We also put a decimal point in the answer.

 $\begin{array}{r}
5 \stackrel{1}{0}.70 \\
+ 8.46 \\
\hline
59.16 \\
\uparrow
\end{array}$ The decimal point in the answer is lined up with the other decimal points.

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