## $\mathrm{LAT}_{\mathrm{E}} \mathrm{X}$

## What is $\mathrm{I}^{\mathrm{A}} \mathrm{T}_{\mathrm{E}} \mathrm{X}$ ?

${ }^{\mathrm{A}} \mathrm{T}_{\mathrm{E}} \mathrm{X}$ is a typesetting system that is most widely used by mathematicians, scientists, engineers, philosophers, economists and other scholars in academia and the commercial world, and other professionals. It is similar to computer programming in the sense that you have to insert commands to tell $\mathrm{IA}_{\mathrm{E}} \mathrm{X}$ how to do something.

## Who developed $\mathbf{I A}^{\mathbf{A}} \mathbf{T}_{\mathbf{E}} \mathbf{X}$ ?

$\mathrm{T}_{\mathrm{E}} \mathrm{X}$ (pronounced as teck) is a program developed by the famous mathematician and computer scientist Don Knuth in the late 70s for typesetting mathematical documents.

## Where do the letters come from?

The characters: T, E, and X in the name come from the capital Greek letters Tau, Epsilon, and Chi. The name of $\mathrm{T}_{\mathrm{E}} \mathrm{X}$ is derived from a Greek word meaning skill, art, and technique.

## What are some features of ${ }^{A} \mathbf{T}_{\mathbf{E}} \mathbf{X}$ ?

- Typesetting journal articles, books, and slide shows
- Ability to do cross-referencing and insert tables and figures
- Typesetting of complex mathematical formulas
- Automatic generation of bibliographies and indexes
- Multi-lingual typesetting
- Inclusion of artwork, and process or spot color


## How can math teachers use $\mathbf{I}^{\mathbf{A}} \mathbf{T}_{\mathbf{E}} \mathbf{X}$ in their classrooms?

${ }^{\mathrm{L}} \mathrm{T}_{\mathrm{E}} \mathrm{X}$ is a useful tool in creating guided notes, worksheets, quizzes and tests. It provides a professional look, while remaining functional and easy to use. ${ }^{\mathrm{A}} \mathrm{T}_{\mathrm{E}} \mathrm{X}$ documents would be perfect for portfolio-quality work. Using the template we have provided on pages 4 and 5 , teachers can use $\mathrm{I}^{\mathrm{A}} \mathrm{T}_{\mathrm{E}} \mathrm{X}$ with greater ease, and create beautifully formatted documents. We used the template to write a review for Integrated Algebra, and we have included the final product, as well as the $\mathrm{T}_{\mathrm{E}} \mathrm{X}$ file of "behind the scenes" commands.

Name: $\qquad$
Date: $\qquad$

## Integrated Algebra Review

1. Which expression is equivalent to $9 x^{2}-16$ ?
(1) $(3 x+4)(3 x-4)$
(3) $(3 x+8)(3 x-8)$
(2) $(3 x-4)(3 x-4)$
(4) $(3 x-8)(3 x-8)$
2. The local ice cream stand offers three flavors of soft-serve ice cream: vanilla, chocolate, and strawberry; two types of cone: sugar and wafer; and three toppings: sprinkles, nuts, and cookie crumbs. If Dawn does not order vanilla ice cream, how many different choices can she make that have one flavor of ice cream, one type of cone, and one topping?
(1) 7
(3) 12
(2) 8
(4) 18
3. Given:
$A=\{$ All even integers from 2 to 20 , inclusive $\}$
$B=\{10,12,14,16,18\}$
What is the complement of set $B$ within the universe of set $A$ ?
(1) $\{4,6,8\}$
(3) $\{4,6,8,20\}$
(2) $\{2,4,6,8\}$
(4) $\{2,4,6,8,20\}$
4. When $5 \sqrt{20}$ is written in simplest radical form, the result is $k \sqrt{5}$. What is the value of $k$ ?
(1) 20
(3) 7
(2) 10
(4) 4
```
\documentclass{article}
\usepackage{kmath,kerkis}
\usepackage{fullpage}
\begin{document }
\begin{flushleft}
Name$\colon$ \underline{\hspace{2in}}\\
\bigskip
Date$\colon$ \underline{\hspace{2.05in}}\\
\end{flushleft}
\bigskip
\begin{center}
\large{\textbf{Integrated Algebra Review}}
\end{center}
\begin{flushleft }
\large{\textbf{$1$.}} \ Which expression is equivalent to $9x^2 - 16$?\\
\qquad ($1$)\($3x+4$)($3x-4$) \hspace{1.5in} ($3$)\($3x+8$)($3x-8$)\\
\qquad ($2$)\($3x-4$)($3x-4$) \hspace{1.5in} ($4$)\($3x-8$)($3x-8$)\\
\vspace{.5in}
\large{\textbf{$2$.}} \ \hangindent=0.27in The local ice cream stand of{}fers
three f{}lavors of soft-serve ice cream: vanilla, chocolate, and strawberry;
two types of cone: sugar and wafer; and three toppings: sprinkles, nuts, and
cookie crumbs. If Dawn does not order vanilla ice cream, how many dif{}ferent
choices can she make that have one f{}lavor of ice cream, one type of cone,
and one topping?\\
\qquad ($1$) \ $7$ \hspace{2.5in} ($3$) \ $12$\\
\qquad ($2$) \ $8$ \hspace{2.5in} ($4$) \ $18$\\
\vspace{.5in}
\large{\textbf{$3$.}} \ Given: \\
\qquad $A$ = \{All even integers from $2$ to $20$, inclusive\}\\
\qquad $B$ = \{$10$, $12$, $14$, $16$, $18$\}\\
\qquad What is the complement of set $B$ within the universe of set $A$?\\
\qquad ($1$) \ \{$4$, $6$, $8$\} \hspace{2.01in}
($3$) \ \{$4$, $6$, $8$, $20$\}\\
\qquad ($2$) \\{$2$, $4$, $6$, $8$\} \hspace{1.83in}
($4$)\\{$2$, $4$, $6$, $8$, $20$\}\\
\vspace{.5in}
\large{\textbf{$4$.}} \ When $5\sqrt{20}$ is written in simplest radical form,
the result is $k\sqrt{5}$. What is the value of $k$?\\
\qquad ($1$) \ $20$ \hspace{2.39in} ($3$) \ $7$\\
\qquad ($2$) \ $10$ \hspace{2.39in} ($4$) \ $4$\\
\end{flushleft}
\end{document}
```

Name: $\qquad$
Date: $\qquad$

## Title

1. insert question here
(1) insert answer here
(3) insert answer here
(2) insert answer here
(4) insert answer here
2. insert question here
(1) insert answer here
(3) insert answer here
(2) insert answer here
(4) insert answer here
3. insert question here
(1) insert answer here
(3) insert answer here
(2) insert answer here
(4) insert answer here
4. insert question here
(1) insert answer here
(3) insert answer here
(2) insert answer here
(4) insert answer here
```
\documentclass{article}
\usepackage{kmath,kerkis}
\usepackage{fullpage}
\begin{document }
\begin{flushleft}
Name$\colon$ \underline{\hspace{2in}}\\
\bigskip
Date$\colon$ \underline{\hspace{2.07in}}\\
\end{flushleft}
\bigskip
\begin{center}
\large{\textbf{Title}}
\end{center}
\begin{flushleft}
\large{\textbf{$1$.}} \ insert question here \\
\qquad ($1$) \ insert answer here \hspace{1in} ($3$) \ insert answer here\\
\qquad ($2$) \ insert answer here \hspace{1in} ($4$) \ insert answer here\\
\vspace{.5in}
\large{\textbf{$2$.}} \ insert question here \\
\qquad ($1$) \ insert answer here \hspace{1in} ($3$) \ insert answer here\\
\qquad ($2$) \ insert answer here \hspace{1in} ($4$) \ insert answer here\\
\vspace{.5in}
\large{\textbf{$3$.}} \ insert question here \\
\qquad ($1$) \ insert answer here \hspace{1in} ($3$) \ insert answer here\\
\qquad ($2$) \ insert answer here \hspace{1in} ($4$) \ insert answer here\\
\vspace{.5in}
\large{\textbf{$4$.}} \ insert question here \\
\qquad ($1$) \ insert answer here \hspace{1in} ($3$) \ insert answer here\\
\qquad ($2$) \ insert answer here \hspace{1in} ($4$) \ insert answer here\\
\end{flushleft}
\end{document }
```

For some helpful formatting commands, visithttp://www.ntg.nl/doc/biemesderfer/ ltxcrib.pdfandhttp://en.wikibooks.org/wiki/LaTeX/Formatting. To download a 30-day free trial of PCTeX, you can visit www.pctex.com.

