Placement: Self Study Guide and Review for MAT 1275

Topic to review	Sample question for self test	Textbook **Review the topics and practice from the textbook:** **https://openstax.org/details/books/intermediate-algebra-2e**	WeBWorK **For further sample question for self test and practice, go to:** **https://mathww.citytech.cuny.edu/webwork2/Guest_Access_-_MAT1275CO/** **Click on: "Guest Login"**
Graphing lines	(a) For the line $2x+4y=6$, find the slope and the y-intercept. (b) Graph the line $y=-2x+5$	Read Chapters 3.1-3.3: https://openstax.org/books/intermediate-algebra-2e/pages/3-introduction Practice exercises: 19, 97, 107, 159	**WeBWorK Set:** "LinesReview" "GraphingLines"
Systems of equations	(c) Solve $\begin{cases} y=2x+3 \\ y-7x=-2 \end{cases}$ (d) Solve $\begin{cases} x+2y=4 \\ 3x+y=-3 \end{cases}$	Read Chapter 4.1: https://openstax.org/books/intermediate-algebra-2e/pages/4-introduction Practice exercises: 31, 45, 47, 51	"LinearSystems"
Factoring polynomials of degree 2	(e) Factor $x^2-7x+12$ (f) Factor $6x^2+x-2$ (g) Factor $25x^2-4$	Read Chapters 6.2-6.3: https://openstax.org/books/intermediate-algebra-2e/pages/6-introduction-to-factoring Practice exercises: 61, 67, 99, 177	"DifferenceOfSquares" "AC-Method"

Review of some more basic topics:

Topic to review	Sample question for self test and practice:	Review the topics and practice from the textbook: **https://openstax.org/details/books/intermediate-algebra-2e**
Fractions	(h) Add $\frac{5}{6}+\frac{4}{15}$ (i) Multiply $\frac{8}{3}\times\frac{21}{10}$	Read Chapter 1.3 on Fractions: https://openstax.org/books/intermediate-algebra-2e/pages/1-3-fractions Practice exercises: #153, 161, 175, 177
Integers	(j) Evaluate $8-7+(-3)$ (k) Evaluate $-60\div(-15)\times 2$	Read Chapter 1.2 on Integers: https://openstax.org/books/intermediate-algebra-2e/pages/1-2-integers Practice exercises: 77, 89, 109, 117
Decimals	(l) Subtract $-36.52-14.8$ (m) Multiply 16.93×1000	Read Chapter 1.4 on Decimals: https://openstax.org/books/intermediate-algebra-2e/pages/1-4-decimals Practice exercises: 251, 271, 265

Selected answers on next page:

(a) slope $m=\frac{-1}{2}$, y-intercept $\left(0,\frac{3}{2}\right)$ (c) $(x,y)=(1,5)$ (d) $(x,y)=(-2,3)$ (e) $(x-3)(x-4)$ (f) $(3x+2)(2x-1)$ (g) $(5x-2)(5x+2)$ (h) $\frac{11}{10}$ (i) $\frac{28}{5}$ (j) -2 (k) 8 (l) -51.32 (m) 16930