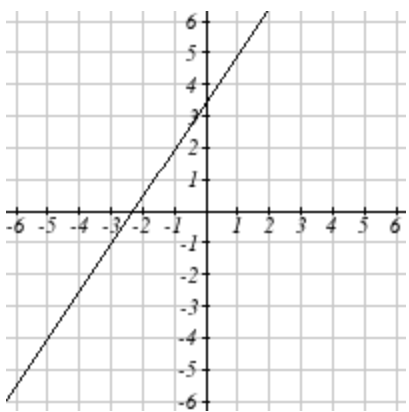
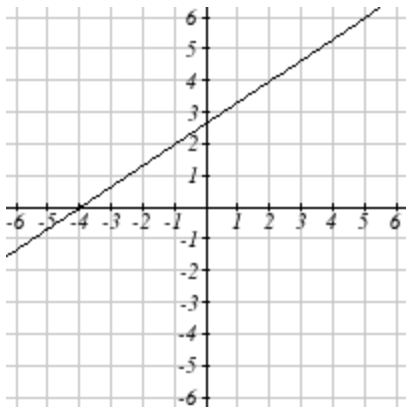
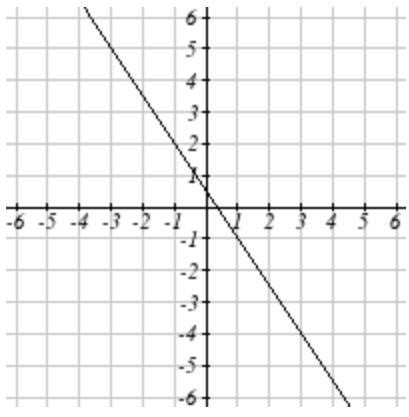


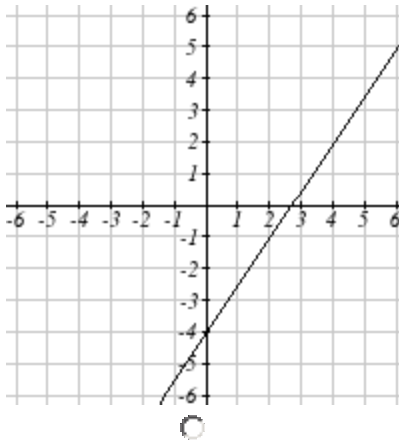
Math 97 (Intermediate Algebra) Entrance Exam Review - Sample

Use this sample to help determine your placement. The Entrance Exam Review is online at: <http://www.wamap.org/diag> (click on GRCC Entrance Exam Review). Password is: **grccee**. Entrance Exams are administered in the GRCC Assessment Center (ZWC building). The exams are online utilizing the WAMAP system.

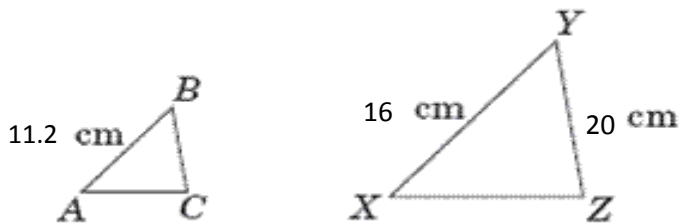
- 1) Solve: $-6x \geq -3(x - 6)$
- 2) Simplify: $(-3x^4y)^2$
- 3) Solve the equation $8x + 2y = 14$ for y .
- 4) Simplify: $(-6x^3y^2)(-2x^4y^3)$
- 5) Solve the equation $\frac{1}{4}y - 3 = \frac{1}{7}y$.
- 6) Multiply and simplify completely: $(11 - 4x)^2$
- 7) A clothing business finds there is a linear relationship between n , the number of shirts it can sell and p , the price which it can charge. In particular, historical data shows that 1000 shirts can be sold at a price of \$31 each, while 7000 shirts can be sold at a price of \$7 each. Give a linear equation in the form $p = mn + b$ that gives the price, p , they can charge for n shirts.
- 8) Use the appropriate conversions listed to convert 120 inches into meters. Round your answer to the nearest hundredth.

1 meter = 1.1 yards
3 feet = 1 yard
12 inches = 1 foot
- 9) Solve for y : $-6y - 3(2y - 1) = 1 + 6(-1 - y)$
- 10) A rectangle has a width of $n - 5$ and a length of $2n^2 + 3n$. What is the perimeter of the rectangle in simplest form?
- 11) Which of the following is a graph of a line passing through the point $(-1, 2)$ with slope of $\frac{3}{2}$?





12) Triangle ABC is similar to triangle XYZ.



$$\overline{AB} = 11.2 \text{ cm}$$

$$\overline{XY} = 16 \text{ cm}$$

$$\overline{YZ} = 20 \text{ cm}$$

What is the length of side \overline{BC}

13) Factor the following expression completely:

$$a^4b^3 + ab^2$$

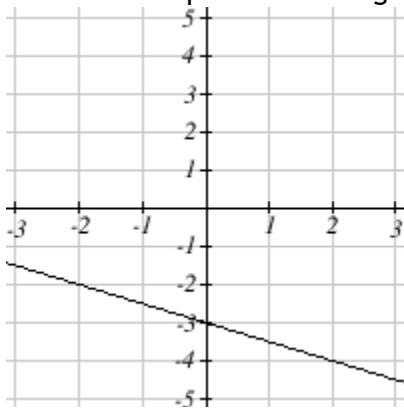
14) Factor $5x^2 - 14x + 8$

15) Completely factor $16x^2 - 64$

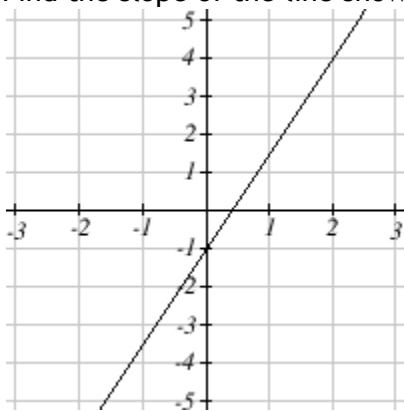
16) Solve this system of equations

$$\begin{cases} x - 2y = -3 \\ -4x + 4y = 8 \end{cases}$$

17) What is the equation of the graph below?



18) Find the slope of the line shown below



19) The length, L (in inches), of a spring is given by $L = \frac{3}{4}F + 8$, where F is applied force in pounds. What value of F will produce a length of 40 inches?

20) Find the equation of the line through the points $(-2, -5)$ and $(2, 4)$. Your answer may involve fractions.