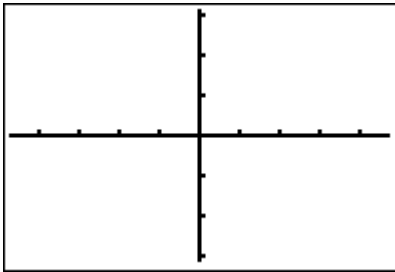
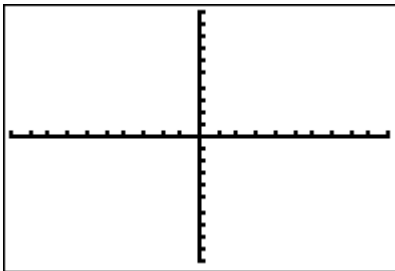


Topic 1: Sketches

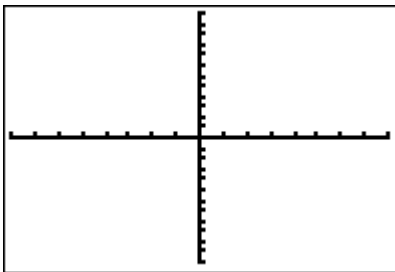
1. sketch $y = 3x - 1$ on Z-Decimal



2. sketch $f(x) = x^2 - 4$ on Z-Standard



3. sketch $y = 4x$ and $y = -3x^2 + 4$ with a window of $-8 < x < 8$ and $-12 < y < 12$



Topic 2: Ordered Pairs and Intercepts

4. state the ordered pair of $y = 4x$ when $x = 2.5$
 5. find the intercepts (zeros) of $y = -3x^2 + 4$

Topic 3: solving equations

6. solve the equation $4(x-2)x = 2x$
 7. solve the equation $\sin(x) = -\sin(x) + 2$ from $-2\pi < x < 2\pi$

Topic 4: Systems of equations

8. solve the system of equations

$$y = 2x - 4$$

$$3x - 9y = -12$$

ACT/SAT Problems

9. There are 20 packages of bagels on a shelf in a store and each package contains the same number of bagels. If 3 of these packages contain a total of 18 bagels, how many bagels are there in 7 of these packages?

- A. 21 B. 36 C. 40 D. 42 E. 49

10. If $xyz = z$ and the value of x is 0, which of the following must be true?

- A. $y = 0$ B. $z = 0$ C. $xy = 1$ D. $y = 1$ E. $z = 1$

11. x^3 is greater than or equal to x^2 for all positive numbers x . Which of the following values of x shows that the statement above is false?

- A. -1 B. 0 C. $1/2$ D. 1 E. 2

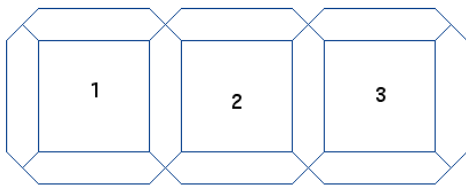
12. If x is 5 percent of r and r is 20 percent of s , what percent of s is x ?

- A. 1% B. 4% C. 10% D. 40% E. 100%

13. One neon sign flashes every 6 seconds. Another neon sign flashes every 8 seconds. If they flash together and you begin counting seconds, how many seconds after they flash together will they next flash together?

- A. 48 B. 24 C. 14 D. 7 E. 2

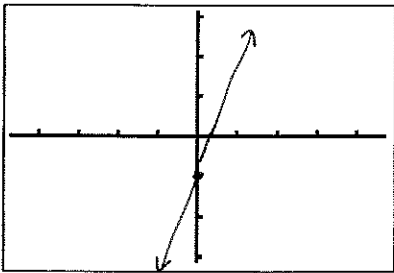
14. The pattern shown in abbreviated form below is composed of squares that are arranged horizontally and surrounded by 4 hexagons. All the squares are congruent, and all hexagons are congruent. How many of these congruent hexagons will there be if the pattern is repeated until there are 20 squares?



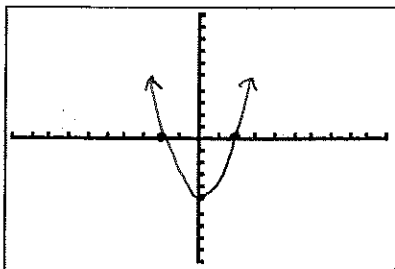
- A. 44 B. 61 C. 70 D. 79 E. 80

Topic 1: Sketches

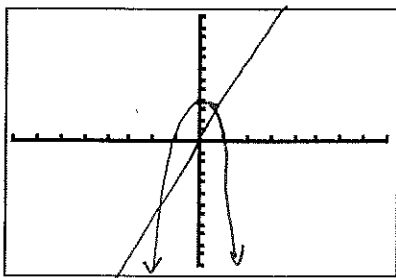
1. sketch $y = 3x - 1$ on Z-Decimal



2. sketch $f(x) = x^2 - 4$ on Z-Standard



3. sketch $y = 4x$ and $y = -3x^2 + 4$ with a window of $-8 < x < 8$ and $-12 < y < 12$



Topic 2: Ordered Pairs and Intercepts

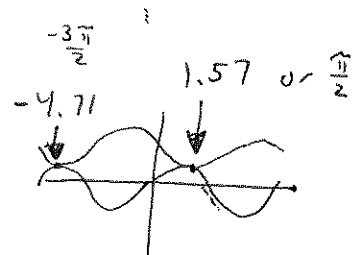
4. state the ordered pair of $y = 4x$ when $x = 2.5$ $(2.5, 10)$

5. find the intercepts (zeros) of $y = -3x^2 + 4$ ± 1.15

Topic 3: solving equations

6. solve the equation $4(x-2)x = 2x$ $0, 2.5$

7. solve the equation $\sin(x) = -\sin(x) + 2$ from $-2\pi < x < 2\pi$



Notebook/Homework Check: