ثانويــة التكنولوجيــا التطبيقيــة
Applied Technology High School

## SAT I                                    2012 / 2013

# Question booklet # 12

| Grade | 12 |
|---|---|
| Cluster | Core |
| Subject | Mathematics |

| Student Name | | | |
|---|---|---|---|
| Student Number | | Section | |

| Coverage | ➢ SAT I, basic reasoning questions. |
|---|---|

**1.** If $\frac{\sqrt{x}}{2} = 3\sqrt{2}$ what is the value of $x$?

    a. 4
    b. 36
    c. 16
    d. 72
    e. 64

**2.** If $x + y = 3 \ and \ 3x = 8 - 4y$ What is the value of $3x$?

    a. 4
    b. 12
    c. $-4$
    d. 9
    e. $-3$

**3.** In the coordinate plane, what is the midpoint of the line segment with endpoints at (5,-2) and (1,4)?

    a. (6,2)
    b. $b.(3,2)$
    c. $c.(6,1)$
    d. $d.(3,1)$
    e. $e.(6,-1)$

**4.** Which of the following is equivalent to $x^2 > 3x$?

    a. $x > 0$
    b. $x < 3$
    c. $x < 0$ or $x > 3$
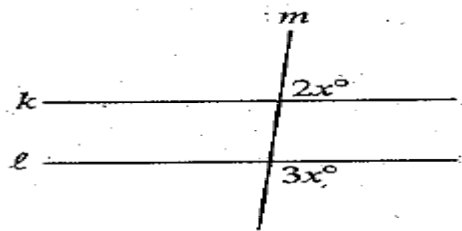    d. $0 < x < 3$
    e. $x > 3$

**5.** $5b^2 - 30b + 45 = ?$

    a. $5(b - 3)$
    b. $5(b - 4)^2$
    c. $(3 - b)^2$
    d. $5(b - 3)^2$
    e. $5(b + 3)^2$

**6.** If x > 0, then 2 percent of 5 percent of 3x is what percent of x ?

    a. 0.03 %
    b. 0.3 %
    c. 0.6 %
    d. 3 %
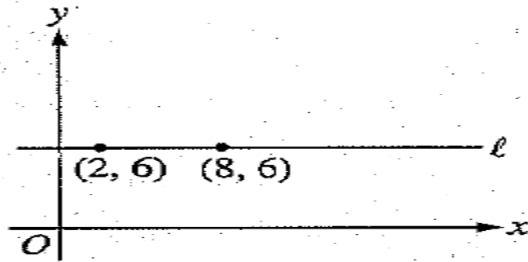    e. 6 %

**7.**



In the figure above, if $k \ and \ l$ are parallel lines intersected by line $m, what \ is \ the \ value \ of \ 2x$?

    a. 30
    b. 45
    c. 60
    d. 72
    e. 85

**8.** In triangle ABC, AB = 6, BC = 12 and AC = x.
Which of the following cannot be a value of x?

    a. 6

    b. 7

    c. 8

    d. 9

    e. 10

**9.**



(2, 6)  (8, 6)

In the figure above, line $l$ has equation
$y = mx + b$, where $m$ and $b$ are constants.

What is the value of ?

    a. 0

    b. 2
    c. 4
    d. 6
    e. 8

**10.** When x is divided by 5, the

remainder is 4.When x is divided by 9, the

remainder is 0.Which of the following is a

possible value for x?

a. 24
b. 45

c. 59

d. 109

e. 144

**11.** If the product of six integers is negative,
then, at **most**, how many of the five integers
could be negative?

    a. *Two*

    b. *three*

    c. *Four*

    d. *Five*

    e. *Six*

**12.** If $x - 1$ is a multiple of 3, which of the
following must be the next greater multiple of
3?
a. $x$
b. $x + 2$
c. $x + 3$
d. $3x$
e. $3x - 3$

**13.** For how many values of $n$ where $n$ is a
positive integer less than 10 is $\frac{n+2}{3}$ an integer?

    a. None
    b. One
    c. Three
    d. Four
    e. Five

**14.** A machine labels 150 bottles in 20
minutes. At this rate, how many minutesdoes it
take to label 60 bottles ?

    a. 2
    b. 4
    c. 6
    d. 8
    e. 10

**End of Practice sheet Two**