## Algebra Readiness Sample Test

Calculators are not allowed for the test.

1. $5.6-0.37$
(A) 5.23
(B) 5.33
(C) 5.37
(D) 1.9
2. If $y=3 x-2$ and $x=6$, then $y=$
(A) 12
(B) 16
(C) 20
(D) 11
3. $7^{2} \cdot 7^{8}$
(A) $7^{10}$
(B) $7^{16}$
(C) $49^{10}$
(D) $49^{16}$
4. $\frac{3}{2}+\frac{4}{5}$
(A) 1
(B) $\frac{7}{10}$
(C) $\frac{23}{10}$
(D) $\frac{7}{12}$
5. Arrange the following numbers in order from smallest to largest

$$
\frac{5}{8}, \quad \frac{2}{3}, \quad 0.65, \quad 0.66
$$

(A) $\frac{5}{8}, 0.65,0.66, \frac{2}{3}$
(B) $0.65,0.66, \frac{2}{3}, \frac{5}{8}$
(C) $\frac{5}{8}, 0.65, \frac{2}{3}, 0.66$
(D) $0.65, \frac{5}{8}, 0.66, \frac{2}{3}$
6. What is $40 \%$ of 72.5 ?
(A) 55
(B) 28
(C) 29
(D) 290
7. $8-(4-7)=$
(A) 11
(B) 5
(C) -5
(D) -3
8. The area $A$ of a rectangle is the product of the rectangle's length $l$ and its width $w$. Which of the following equations represents this statement?
(A) $A=\frac{l}{w}$
(B) $A=l+w$
(C) $A=2 l+2 w$
(D) $A=l \times w$
w
9. Expressed as a product of primes, the number 28 equals
(A) $2 \times 14$
(B) $4 \times 7$
(C) $2 \times 2 \times 7$
(D) $2 \times 3 \times 7$
10. $(2.1)^{2}-(0.1)^{2}=$
(A) 4
(B) 4.21
(C) 4.22
(D) 4.4
11. What is the radius of a circle whose area is $36 \pi$ ?
(A) 36
(B) 18
(C) 6
(D) $6 \pi$
12. For a certain class, the ratio of the number of female students to the total number of students is 2 to 5 . If there are 35 students in the class, how many are female students?
(A) 10
(B) 14
(C) 21
(D) 30
13. In the right triangle $P Q R$ shown to the right, what is the length of $P Q$ ?
(A) 2
(B) 4
(C) 6
(D) 8

14. What number multiplied by -5 gives 60 as the result?
(A) 300
(B) 55
(C) 12
(D) -12
15. On the number line below, what number represents the point half the distance between points A and B?

(A) 0
(B) 1
(C) 2
(D) 4

| Question | Correct Answer | Topic |
| :--- | :--- | :--- |
| $\mathbf{1}$ | A | DECM |
| 2 | B | EQTN |
| 3 | A | EXPS |
| 4 | C | FRAC |
| 5 | A | DECM |
| 6 | C | DECM |
| 7 | A | INTG |
| $\mathbf{8}$ | D | EQTN |
| 9 | C | INTG |
| 10 | D | EXPS |
| $\mathbf{1 1}$ | C | GEOM |
| 12 | B | FRAC |
| 13 | B | GEOM |
| 14 | D | INTG |
| 15 | B | GEOM |


| DECM | lecimals, their Operations \& Applications; Percent |
| :--- | :--- |
| EQTN | Simple Equations and Operations with Literal Symbols |
| EXPS | Exponents and Square Roots; Scientific Notation |
| FRAC | Fractions and their Applications |
| GEOM | Geometry and Graphing |
| INTG | Integers, their Operations \& Applications |

