ASVAB Mathematics Knowledge Practice Test

**Q1. x + 9 = 13, Find x = ?**

* A. 3
* B. 4
* C. 5
* D. 13

**Answer \_\_**

**Q2. 3² + 4(5 – 2) = ?**

* A. 21
* B. 36
* C. 39
* D. 40

**Answer \_\_**

**Q3.**  1 \frac14 × 2 \frac12 = ?141​×221​=?

* A. 2 \frac12221​
* B. 2 \frac14241​
* C. 2\frac34243​
* D. 3 \frac18381​

**Answer \_\_**

**Q4. The square root of 64 =**

* A. 4
* B. −8
* C. 9
* D. −9

**Answer \_\_**

**Q5. . What is the value of the following expression if x = 2 and y = 4?**

**2x³y²**

* A. 52
* B. 106
* C. 256
* D. 512

**Answer \_\_**

**Q6. Add:**

**3x² + 3xy + 4y + 2y²**  
**3x² + xy + 9y + y²**  
**−5x² − 2xy − 13y + y²**  
**−3x² + 3xy + y − 4y**

* A. 2x + xy + 2y + y²
* B. − 2x − xy + y + y²
* C.  −3x² − 2xy − 3y + y²
* D. −2x² + 5xy + y

**Answer \_\_**

**Q7. Factor the following expression:** y² − 16y + 48

* A. (y − 1)(y +48)
* B. (y − 4)(y − 12)
* C. (y − 4)(y + 4)
* D. (y +1)(y − 16)

**Answer \_\_**

**Q8. Solve for x.**12x + 6 = 8x +10

* A. x = 1
* B. x = 2
* C. x = 4
* D. x = 6

**Answer \_\_**

**Q9. Solve for the two unknowns.**  
3y + 3x = 24  
6y + 3x = 39

* A. y = 3; x = 5
* B. y = 4; x = 6
* C. y = 5; x = 3
* D. y = 6; x = 2

**Answer \_\_**

Q10. **x¹² / x4**

* A. x−4
* B. x8
* C. x18
* D. x−16

**Answer \_\_**

**Q11. Solve for y.**

**y² + 7y = −10**

* A. y = −5; y = −2
* B. y = 1; y = −10
* C. y = −2; y = 6
* D. y = 5; y = −1

**Answer \_\_**

**Q12. Multiply:** \frac{6y}{11} × \frac{2}{5x}116*y*​×5*x*2​

* A. 6y + 5x =22
* B. 22y / 5x
* C.  5y/ 22x
* D. 22y / 55x

**Answer \_\_**

**Q13. Divide:** \frac{6x}{11} ÷ \frac{2}{5y}116*x*​÷5*y*2​

* A. 3y + 11x =2
* B. 15xy / 11
* C.  12/ 22xy
* D. 11y / 25x

**Answer \_\_**

**Q14.** \sqrt[3]2732​7

* A. 3
* B. 4
* C. 5
* D. 2.25

**Answer \_\_**

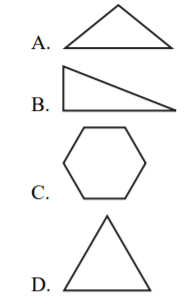
*To answer most questions of this type on the ASVAB, you just need to memorize some basic cubes. It would be wise to memorize all the*  
*cubes from 2 to 10, just to prepare for ASVAB test item possibilities*

**Q15. Solve for g**\fracgh =a\fracgh=*a*

* A. ga / h
* B. g =a/h
* C. g = ah
* D. g = a ÷ h

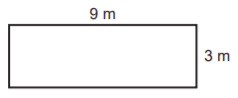
**Answer \_\_**

**Q16. Which of the following is an equilateral triangle?**



**Answer \_\_**

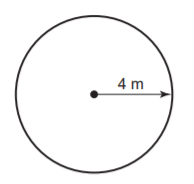
**Q17. What is the perimeter of the following rectangle?**



* A. 12 m
* B. 18 m
* C. 24 m
* D. 12 m

**Answer \_\_**

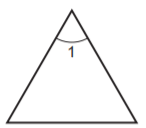
**Q18. What is the circumference of the following circle?**



* A. 6.56 m
* B. 12.56 m
* C. 25.12 m
* D. 35.12 m

**Answer \_\_**

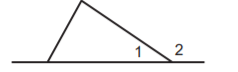
**Q19. In the following equilateral triangle, what is the measure of ∠1?**



* A. 30°
* B. 45°
* C. 60°
* D. 90°

**Answer \_\_**

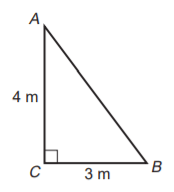
**20. If ∠1 is 34°, what is the measure of ∠2?**



* A. 56°
* B. 110°
* C. 146°
* D. 180°

**Answer \_\_**

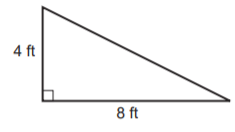
**Q21. In the following right triangle, what is the length of side AB?**



* A. 3 m
* B. 5 m
* C. 7 m
* D. 12 m

**Answer \_\_**

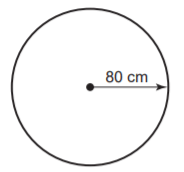
**Q22. What is the area of the following triangle?**



* A. 8 ft²
* B. 12 ft²
* C. 15 ft²
* D. 16 ft²

**Answer \_\_**

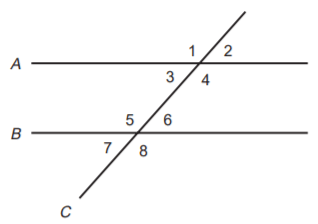
**Q23. What is the diameter of the following circle?**



* A. 40 cm
* B. 80 cm
* C. 160 cm
* D. 640 cm

**Answer \_\_**

**Q24. If lines A and B are parallel and are intersected by line C and ∠2 is 30°, what is the measure of ∠7?**



* A. 30°
* B. 50°
* C. 112°
* D. 130°

**Answer \_\_**

**Q25. What is the volume of a cylinder with a height of 15 m and a radius of 5 m?**

* A. 235.50 m³
* B. 1,177.50 m³
* C. 1,280.25 m³
* D. 1,340.25 m³

**Answer \_\_**

**Answers Keys and Explanation Link**

<https://gotestprep.com/asvab-math-practice-test-pdf/>