

ASVAB Mathematics Knowledge Practice Test

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

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

Answer __

Q2. $3^2 + 4(5 - 2) = ?$

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

Answer __

Q3. $1 \frac{1}{4} \times 2 \frac{1}{2} = ?$

- A. $2 \frac{1}{2}$
- B. $2 \frac{1}{4}$
- C. $2 \frac{3}{4}$
- D. $3 \frac{1}{8}$

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 $y = 4$?

$2x^3y^2$

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

Answer __

Q6. Add:

$$3x^2 + 3xy + 4y + 2y^2$$

$$3x^2 + xy + 9y + y^2$$

$$-5x^2 - 2xy - 13y + y^2$$

$$-3x^2 + 3xy + y - 4y$$

- A. $2x + xy + 2y + y^2$
- B. $-2x - xy + y + y^2$
- C. $-3x^2 - 2xy - 3y + y^2$
- D. $-2x^2 + 5xy + y$

Answer __

Q7. Factor the following expression: $y^2 - 16y + 48$

- 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. x^{12} / x^4

- A. x^{-4}
- B. x^8
- C. x^{18}
- D. x^{-16}

Answer __

Q11. Solve for y.

$$y^2 + 7y = -10$$

- A. $y = -5; y = -2$
- B. $y = 1; y = -10$
- C. $y = -2; y = 6$
- D. $y = 5; y = -1$

Answer __

Q12. Multiply: $\frac{6y}{11} \times \frac{2}{5x}$

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

Answer __

Q13. Divide: $\frac{6x}{11} \div \frac{2}{5y}$

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

Answer __

Q14. $\sqrt[3]{27}$

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

Answer __

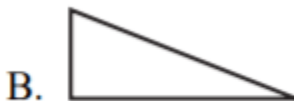
To answer most questions of this type on the ASVAB, you just need to memorize some basic cubes. It would be wise to memorize all the cubes from 2 to 10, just to prepare for ASVAB test item possibilities

Q15. Solve for g $\frac{g}{h} = a$

- A. ga / h
- B. $g = a/h$
- C. $g = ah$
- D. $g = a \div h$

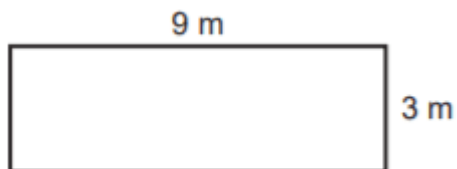
Answer __

Q16. Which of the following is an equilateral triangle?



Answer __

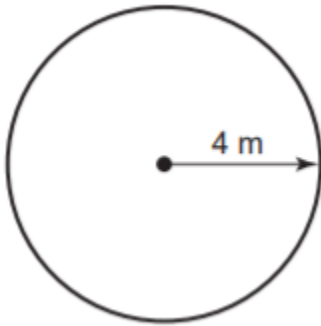
Q17. What is the perimeter of the following rectangle?



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

Answer __

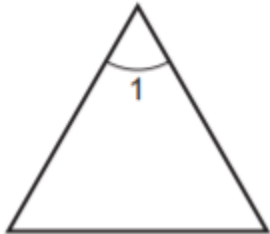
Q18. What is the circumference of the following circle?



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

Answer __

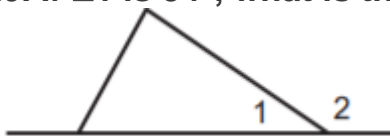
Q19. In the following equilateral triangle, what is the measure of $\angle 1$?



- A. 30°
- B. 45°
- C. 60°
- D. 90°

Answer __

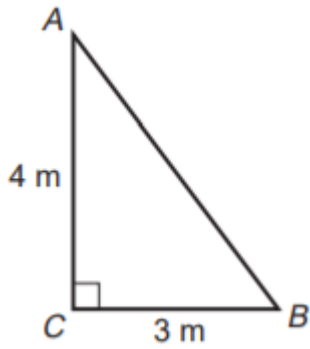
20. If $\angle 1$ is 34° , what is the measure of $\angle 2$?



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

Answer __

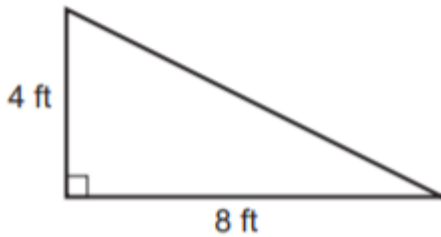
Q21. In the following right triangle, what is the length of side AB?



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

Answer __

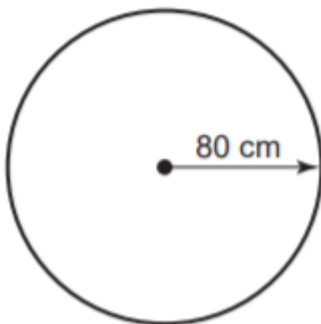
Q22. What is the area of the following triangle?



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

Answer __

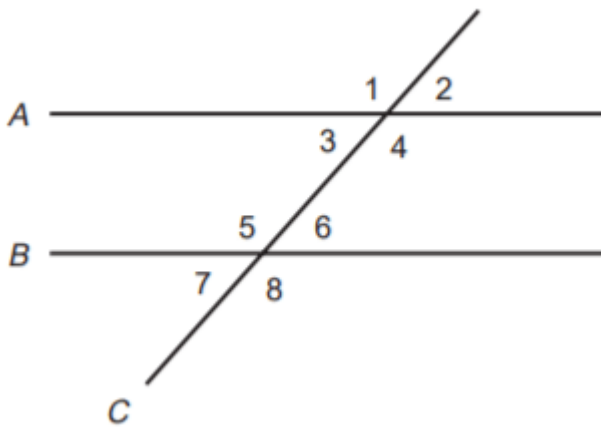
Q23. What is the diameter of the following circle?



- 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 $\angle 2$ is 30° , what is the measure of $\angle 7$?



- 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 m^3
- B. $1,177.50 \text{ m}^3$
- C. $1,280.25 \text{ m}^3$
- D. $1,340.25 \text{ m}^3$

Answer __

Answers Keys and Explanation Link

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