ASVAB Section 6: Mathematics Knowledge

1. If x = 8, what's the value of y in the equation:
y = (x2 ÷ 4) – 2?

A. 14

B. 16

C. 18

D. 20

Answer(s): A

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2. The cube of 5 is _____.

A. 125

B. 25

C. 15

D. 50

Answer(s): A

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3. 2.5 × 33 = _____.

A. 22.5

B. 75.0

C. 67.5

D. 675.0

Answer(s): C

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4. The fourth root of 16 is _____.

A. 4

B. 1

C. 3

D. 2

Answer(s): D

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5. What's the equation of a line that passes through points (0, −1) and (2, 3)?

A. y = 2x − 1

B. y = 2x + 1

C. x = 2y − 1

D. x = 2y + 1

Answer(s): A

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6. (12 yards + 14 feet) ÷ 5 = _____ .

A. 12 feet

B. 51⁄5 feet

C. 10 feet

D. 21/2 yards

Answer(s): C

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7. $x^3 \times x^4 =$ _____.

A. x^{12}

B. $2x^7$

C. $2x^{12}$

D. x^7

Answer(s): D

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8. $(x + 4)(x + 2) =$ _____ .

A. $x^2 + 6x + 6$

B. $x^2 + 8x + 8$

C. $x^2 + 8x + 6$

D. $x^2 + 6x + 8$

Answer(s): D

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9. $1.5 \times 10^3 =$ _____.

A. 45

B. 150

C. 1,500

D. 15

Answer(s): C

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10. Which of the following is a prime number?

A. 27

B. 11

C. 8

D. 4

Answer(s): B

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11. What's the mode of the following series of numbers? 4, 4, 8, 8, 8, 10, 10, 12, 12

A. 9

B. 8

C. 11

D. 10

Answer(s): B

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12. If a = 4, then a3 ÷ a = _____.

A. 4

B. 12

C. 64

D. 16

Answer(s): D

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13. Solve for the factorial of 5 (5!).

A. 25

B. 125

C. 120

D. 15

Answer(s): C

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14. (900 × 2) ÷ 6 = _____.

A. 30

B. 300

C. 150

D. 3,000

Answer(s): B

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15. If x = 2, then xx × x = _____.

A. 8

B. 2xx

C. 4

D. 6

Answer(s): A

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16. If (5 + 1)(6 ÷ 3)(8 − 5) = (3 + 3)x, then x = _____.

A. 12

B. 3

C. 4

D. 6

Answer(s): D

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17. √49 × √64 = _____.

A. 56

B. 15

C. 42

D. 3,136

Answer(s): A

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18. Which of the following fractions is the largest?

A. 2⁄5

B. 3⁄8

C. 7⁄10

D. 13⁄16

Answer(s): D

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19. If 2 + x ≥ 4, what is the value of x?

A. 6

B. 2

C. 4

D. 1⁄2

Answer(s): B

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20. If a circle has a radius of 12 feet, what's its circumference most nearly?

A. 24 feet

B. 72 feet

C. 75 feet

D. 36 feet

Answer(s): C