

# ASVAB Section 2: Arithmetic Reasoning

1. If a car is towed 12 miles to the repair shop, and the tow charge is \$3.50 per mile, how much did the tow cost?

A. \$12.00

B. \$3.50

C. \$42.00

D. \$100.00

**Answer(s): C**

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2. The sum of two numbers is 70. One number is 8 more than the other. What's the smaller number?

A. 31

B. 33

C. 35

D. 36

**Answer(s): A**

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3. A sales manager buys antacid in bottles by the gross. If he goes through 3 bottles of antacid every day, how long will the gross last?

A. 144 days

B. 3 days

C. 20 days

D. 48 days

**Answer(s): D**

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4. Jenny's test grades are 93, 89, 96, and 98.

If she wishes to raise her average to 95, what does she need to score on her next test?

A. 100

B. 99

C. 97

D. 95

**Answer(s): B**

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5. A waitress earns an average tip of 12% of the cost of the food she serves.

If she serves \$375 worth of food in one evening, how much money in tips will she earn on average?

A. \$37

B. \$45

C. \$42

D. \$420

**Answer(s): B**

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6. How many square feet of carpeting are needed to carpet a 12-foot  $\times$  12-foot room?

A. 24

B. 120

C. 48

D. 144

**Answer(s): D**

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7. Carpet stain protector costs \$0.65 per square yard to apply.  
How much will it cost to apply the protectant to a 16-foot  $\times$  18-foot carpet?

A. \$187.20

B. \$62.40

C. \$20.80

D. \$96.00

**Answer(s): C**

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8. A printing plant that produces baseball cards has a monthly overhead of \$6,000. It costs 18 cents to print each card, and the cards sell for 30 cents each.  
How many cards must the printing plant sell each month in order to make a profit?

A. 30,000

B. 40,000

C. 50,000

D. 60,000

**Answer(s): C**

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9. Joe received an hourly wage of \$8.15. His boss gave him a 7% raise. How much does Joe make per hour now?

A. \$0.57

B. \$8.90

C. \$8.72

D. \$13.85

**Answer(s): C**

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10. Alice leaves her house, driving east at 45 miles per hour (mph). Thirty minutes later, her husband Dave notices she forgot her cell phone and sets off after her. How fast must Dave travel in order to catch up with Alice 3 hours after he leaves?

A. 49 mph

B. 50.5 mph

C. 52.5 mph

D. 54 mph

**Answer(s): C**

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11. A baker made 20 pies. A Boy Scout troop buys one-fourth of his pies, a preschool teacher buys one-third of his pies, and a caterer buys one-sixth of his pies. How many pies does the baker have left?

A. 34

B. 15

C. 12

D. 5

**Answer(s): D**

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**12.** Miriam bought five cases of motor oil on sale. A case of motor oil normally costs \$24.00, but she was able to purchase the oil for \$22.50 a case.

How much money did Miriam save on her entire purchase?

A. \$7.50

B. \$1.50

C. \$8.00

D. \$22.50

**Answer(s): A**

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**13.** A security guard walks the equivalent of six city blocks when he makes a circuit around the building.

If he walks at a pace of eight city blocks every 30 minutes, how long will it take him to complete a circuit around the building, assuming he doesn't run into any thieves?

A. 20.00 minutes

B. 3.75 minutes

C. 22.50 minutes

D. 24.00 minutes

**Answer(s): C**

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**14.** The population of Grand Island, Nebraska, grew by 600,000 people between 1995 and 2005, one-fifth more than the town council predicted.

The town council originally predicted the city's population would grow by .

A. 400,000

B. 500,000

C. 300,000

D. 200,000

**Answer(s): B**

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**15.** Joan is taking an admissions examination.

If she has to get at least 40 of the 60 questions right to pass, what percent of the questions does she need to answer correctly?

A. 30%

B. 40%

C.  $66\frac{1}{3}\%$

D.  $66\frac{2}{3}\%$

**Answer(s): D**

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**16.** A teacher deposited \$3,000 in a retirement fund.

If she didn't add any more money to the fund, which earns an annual interest rate of 6%, how much money would she have in 1 year?

A. \$180

B. \$3,006

C. \$3,180

D. \$6,000

**Answer(s): C**

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17. The high-school track measures one quarter of a mile around.

How many laps would you have to run in order to run three and a half miles?

A. 12

B. 14

C. 16

D. 18

**Answer(s): B**

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18. Karl is driving in Austria, where the speed limit is posted in kilometers per hour. The car's speedometer shows that he's traveling at a rate of 75 kilometers per hour. Karl knows that a kilometer is about  $\frac{5}{8}$  of a mile.

Approximately how many miles per hour is Karl traveling?

A. 47

B. 120

C. 50

D. 53

**Answer(s): A**

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19. A carpenter earns \$12.30 an hour for a 40-hour week. His overtime pay is  $1\frac{1}{2}$  times his base pay. If he puts in a 46-hour week, how much is his weekly pay?

A. \$602.70

B. \$492.00

C. \$565.80

D. \$110.70

**Answer(s):** A

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**20.** An office building has 30 employees and allows 42 square feet of work space per employee. If five more employees are hired, how much less work space will each employee have?

A. 6 square feet

B. 7 square feet

C. 7.5 square feet

D. 8 square feet

**Answer(s):** A

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