

Arithmetic Reasoning

1. A man buys two shirts. One is \$7.50 and the other is \$3.00. A 6% tax is added to his total. What is his total?

- a. ~~\$10.50~~
 b. \$11.13
 c. ~~\$14.58~~
 d. ~~\$16.80~~
 e. ~~\$18.21~~

$$\begin{array}{r} 10.50 \\ + 3.00 \\ \hline 11.00 \end{array}$$

10% smaller
 1% smaller
 5%

2. If a chef can make 25 pastries in a day, how many can he make in a week?

- a. 32
 b. 74
 c. 126
 d. 175
 e. 250

$$25 \times 7$$

3. A woman must earn \$250 in the next four days to pay a traffic ticket. How much will she have to earn each day?

- a. \$45.50
 b. \$62.50
 c. \$75.50
 d. \$100.50
 e. \$125.00

$$\begin{array}{r} 6 \\ 4 \overline{)250} \end{array}$$

4. A car lot has an inventory of 476 cars. If 36 people bought cars in the week after the inventory was taken, how many cars will remain in inventory at the end of that week?

- a. 440
 b. 476
 c. 484
 d. 512
 e. 536

$$\begin{array}{r} 476 \\ - 36 \\ \hline \end{array}$$

5. A woman has \$450 in a bank account. She earns 0.5% interest on her end-of-month balance. How much interest will she earn for the month?

- a. \$0.50
 b. \$2.25
 c. \$4.28
 d. \$4.73
 e. \$6.34

$$\begin{array}{r} 450 \\ \times 0.005 \\ \hline 2.25 \end{array}$$

%

6. Three children decide to buy a gift for their father. The gift costs \$78. One child contributes \$24. The second contributes \$15 less than the first. How much will the third child have to contribute?

- a. \$15
 b. \$39
 c. \$45
 d. \$62
 e. \$69

$$\begin{array}{r} 78 \\ - 24 \\ \hline 54 \\ - 9 \\ \hline 45 \end{array}$$

$$\begin{array}{r} 24 \\ - 15 \\ \hline 9 \end{array}$$

45 1/5

Math Story

7. Two women have credit cards. One earns 3 points for every dollar she spends. The other earns 6 points for every dollar she spends. If they each spend \$5.00, how many combined total points will they earn?

- a. 15
- b. 30
- c. 45
- d. 60
- e. 75

$$\begin{array}{r} 15- \\ 30- \\ \hline 45 \end{array}$$

8. A company employing 540 individuals plans to increase its workforce by 13%. How many people will the company employ after the expansion?

- a. 527
- b. 547
- c. 553
- d. 570
- e. 610

$$\begin{array}{r} 540 \\ 57 + \\ \hline 597 \end{array} \quad \%$$

9. A 13 story building has 65 apartments. If each floor has an equal number of apartments, how many apartments are on each floor?

- a. 2
- b. 3
- c. 4
- d. 5
- e. 6

$$\begin{array}{r} 13 \\ \hline 65 \end{array}$$

Math Story

10. If 5 people buy 3 pens each and 3 people buy 7 pencils each, what is the ratio of the total number of pens sold to the total number of pencils sold?

- a. 7:3
- b. 3:7
- c. 5:7
- d. 1:1
- e. 5:3

$$\begin{array}{l} 15 : 21 \\ 5 : 7 \end{array}$$

11. A man earns \$15.23 per hour and gets a raise of \$2.34 per hour. What is his new hourly rate of pay?

- a. \$12.89
- b. \$15.46
- c. \$17.57
- d. \$23.40
- e. \$35.64

$$\begin{array}{r} 15.23 \\ 2.34 \\ \hline 17.57 \end{array}$$

Math

12. How many people can travel on 6 planes if each carries 300 passengers?

- a. 1800
- b. 1200
- c. 600
- d. 350
- e. 300

$$\begin{array}{r} 300 \\ \times 6 \\ \hline \end{array}$$

6 Math

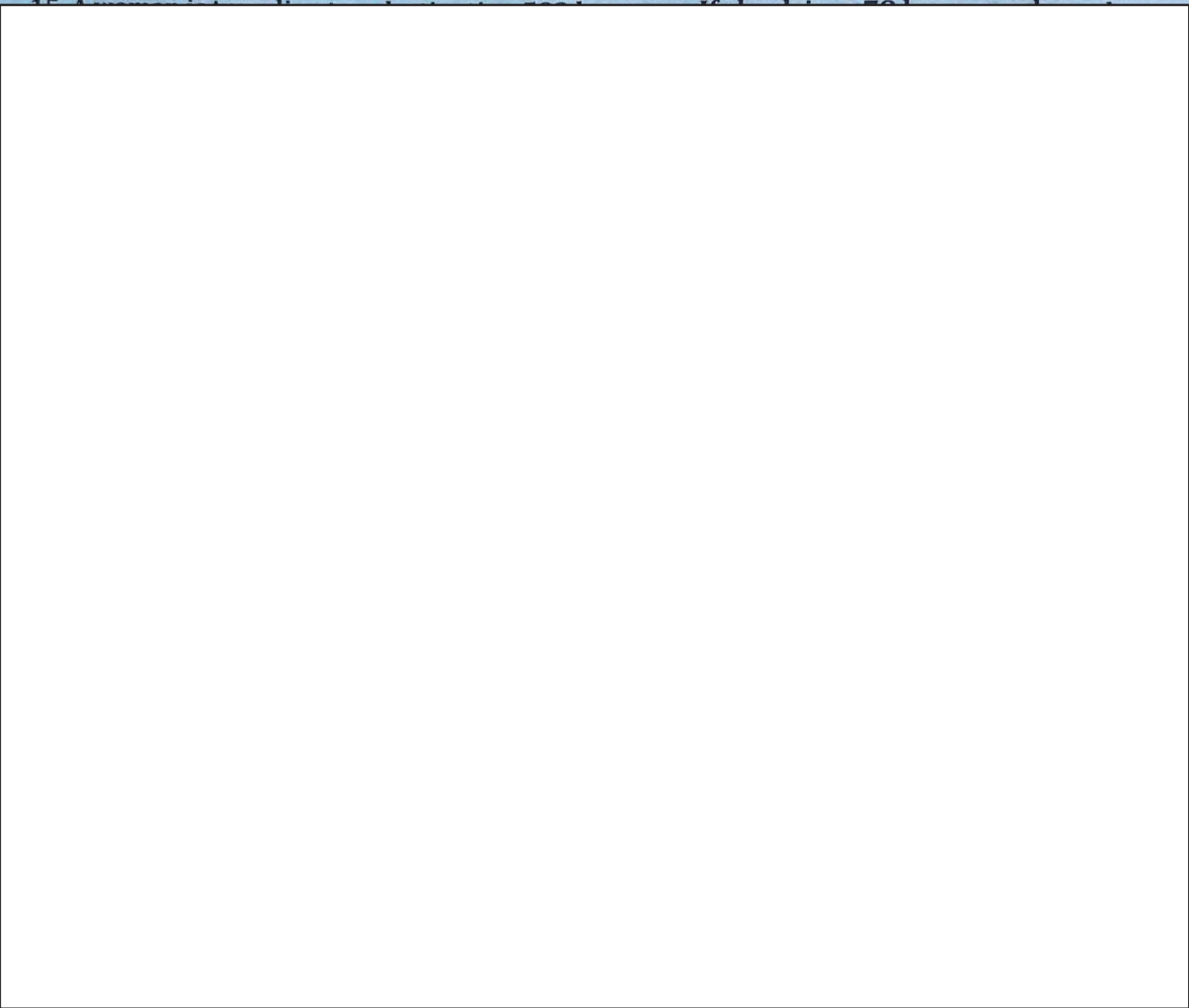


14. A woman weighing 250 pounds goes on a diet. During the first week, she loses 3% of her body weight. During the second week, she loses 2%. At the end of the second week, how many pounds has she lost?

- a. 12.5
- b. 10
- c. 12.35
- d. 15
- e. 17.5

Handwritten calculations in red and blue ink:

- Initial weight: 250
- 3% loss: $250 \times 0.03 = 7.5$
- Weight after 1st week: $250 - 7.5 = 242.5$
- 2% loss: $242.5 \times 0.02 = 4.85$
- Total weight lost: $7.5 + 4.85 = 12.35$



19. A man goes to the mall with \$50.00. He spends \$15.64 in one store and \$7.12 in a second store. How much does he have left?

- a. \$27.24
- b. \$32.76
- c. \$34.36
- d. \$42.8
- e. \$57.12

$$\begin{array}{r} 64 \\ + 12 \\ \hline 76 \end{array} \quad 24$$

20. 600 students must share a school that has 20 classrooms. How many students will each classroom contain if there are an equal number of students in each class?

- a. 10
- b. 15
- c. 20
- d. 25
- e. 30

21. Four workers at a shelter agree to care for the dogs over a holiday. If there are 48 dogs, how many must each worker look after?

- a. 8
- b. 10
- c. 12
- d. 14
- e. 16

$$\begin{array}{r} 48 \\ \hline 4 \end{array}$$

22. One worker has an office that is 20 feet long. Another has an office that is 6 feet longer. What is the combined length of both offices?

- a. 26 feet
- b. 36 feet
- c. 46 feet
- d. 56 feet
- e. 66 feet

$$\begin{array}{r} 20 \\ + 26 \\ \hline \end{array}$$

23. Four friends go shopping. They purchase items that cost \$6.65 and \$159.23. If they split the cost evenly, how much will each friend have to pay?

- a. \$26.64
- b. \$39.81
- c. \$41.47
- d. \$55.30
- e. \$82.95

$$\begin{array}{r} 6.65 \\ + 159.23 \\ \hline 165.88 \end{array}$$

24. A 140-acre forest is cut in half to make way for development. What is the size of the new forest's acreage?

- a. 70
- b. 80
- c. 90
- d. 100
- e. 120

$$\begin{array}{r} 140 \\ \hline 2 \end{array}$$

25. A farmer has 360 cows. He decides to sell 45. Shortly after, he purchases 85 more cows. How many cows does he have?


- a. 230
- b. 315
- c. 400
- d. 490
- e. 530

$$\begin{array}{r} 360 \\ +85 \\ -45 \\ \hline 400 \end{array}$$

$$\begin{array}{r} 360 \\ +85 \\ -45 \\ \hline 400 \end{array}$$

2. If the outer diameter of a cylindrical oil tank is 54.28 inches and the inner diameter is 48.7 inches, the thickness of the wall of the tank, in inches, is

- ~~(A) 2.79~~
- ~~(B) 3.29~~
- (C) 4.58
- (D) 5.58
- ~~(E) 6.47~~



$$\begin{array}{r} 54.28 \\ -48.7 \\ \hline 5.58 \end{array}$$

7. Assuming that on a blueprint $\frac{1}{8}$ inch equals 12 feet inches of actual length, the actual length (in feet) of a steel bar represented on the blueprint by a line $3\frac{3}{4}$ inches long is

- (A) 30
- (B) 45
- (C) 75
- (D) 160
- (E) 360

$$\frac{3\frac{3}{4}}{\frac{1}{8}} = 24$$

$$\begin{array}{r} 24 \text{ feet} \\ \times 6 \text{ feet} \\ \hline 30 \text{ feet} \end{array}$$