



GMAT Practice Worksheet: Arithmetic

Objective: The purpose of this worksheet is to give you practice solving GMAT problems involving “Arithmetic.” To solve these questions, use the skills learned in *Game Plan for the GMAT* and taught in the video lesson “Percents, Fractions, Decimals, Ratios, Averages, Statistics, and Prime Factorization”.

Directions: Solve each problem, taking as much time as necessary. Use non-standard math techniques when appropriate. Do not be concerned with time; learning the techniques and relevant arithmetic is what is most important.

1. A machine can insert letters in envelopes at the rate of 120 per minute. Another machine can stamp the envelopes at the rate of 3 per second. How many such stamping machines are needed to keep up with 18 inserting machines of this kind?

- (a) 12
- (b) 16
- (c) 20
- (d) 22
- (e) 24

2. Every student who studies art in a certain school receives exactly one of the grades A, B, C, or D. If $\frac{1}{5}$ of the students receive A's, $\frac{1}{4}$ receive B's, $\frac{1}{2}$ receive C's, and 10 students receive D's, how many students in the school study art?

- (a) 30
- (b) 60
- (c) 100
- (d) 200
- (e) 500

3. If United States imports increased 20 percent and exports decreased 10 percent during a certain year, the ratio of imports to exports at the end of the year was how many times the ratio at the beginning of the year?

- (a) $\frac{12}{11}$
- (b) $\frac{4}{3}$
- (c) $\frac{11}{8}$
- (d) $\frac{3}{2}$
- (e) 2

4. $\frac{1}{2} \cdot \frac{2}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} \cdot \frac{5}{6} \cdot \frac{6}{7} =$

- (a) $\frac{1}{7}$
- (b) $\frac{3}{7}$
- (c) $\frac{21}{27}$
- (d) $\frac{6}{7}$
- (e) $\frac{7}{8}$

5. On the last day of a one-week sale, customers numbered 149 through 201 were waited on. How many customers were waited on that day?

- (a) 51
- (b) 52
- (c) 53
- (d) 152
- (e) 153

6. If S is the set of positive integers that are multiples of 7, and if T is the set of positive integers that are multiples of 13, how many integers are in the intersection of S and T ?

- (a) None
- (b) One
- (c) Seven
- (d) Thirteen
- (e) More than thirteen

7. The population of Norson, the largest city in Transytania, is 50 percent of the rest of the population of Transytania. The population of Norson is what percent of the entire population of Transytania?

- (a) 20%
- (b) 25%
- (c) 30%
- (d) $33\frac{1}{3}\%$
- (e) 50%

8. All numbers divisible by both 4 and 15 are also divisible by which of the following?

- (a) 6
- (b) 8
- (c) 18
- (d) 24
- (e) 45

9. Seven cards in a pile are numbered 1 through 7. One card is drawn. The units digit of the sum of the numbers on the remaining cards is 7. What is the number on the drawn card?

- (a) 1
- (b) 3
- (c) 5
- (d) 6
- (e) 7

10. To make an orange dye, 3 parts of red dye are mixed with 2 parts of yellow dye. To make a green dye, 2 parts of blue dye are mixed with 1 part of yellow dye. If equal amounts of green and orange are mixed, what is the proportion of yellow dye in the new mixture?

- (a) $\frac{3}{16}$
- (b) $\frac{1}{4}$
- (c) $\frac{11}{30}$
- (d) $\frac{3}{8}$
- (e) $\frac{7}{12}$

11. The sum of the positive odd integers less than 50 is subtracted from the sum of the positive even integers less than or equal to 50. What is the resulting difference?

- (a) 0
- (b) 25
- (c) 50
- (d) 100
- (e) 200

12. The average (arithmetic mean) of five numbers is 25. After one of the numbers is removed, the average (arithmetic mean) of the remaining numbers is 31. What number has been removed?

- (a) 1
- (b) 6
- (c) 11
- (d) 24
- (e) It cannot be determined from the information given.

13. Tom has received a 50% increase in salary three years in a row. What is Tom's net percentage increase in salary over this three year period?

- (a) 125%
- (b) 150%
- (c) 237.5%
- (d) 337.5%
- (e) 450%

GMAT Arithmetic Worksheet: **ANSWER KEY**

Note: Video answer explanations for each question on this worksheet can be found under the “Worksheets” heading on your back-end member page. If you still have questions about certain problems after watching the solution videos, contact your instructor or send an e-mail to info@dominatethegmat.com.

1. A
2. D
3. B
4. A
5. C
6. E
7. D
8. A
9. A
10. C
11. B
12. A
13. C