

## GMAT Fractions Practice Test 1

### Question 1:

What is  $66\frac{2}{3}\%$  of 18?

Possible Answers:

10

12

12

8

15

### Question 2:

If  $x = \frac{1}{2}$  and  $y = \frac{1}{3}$ , which of the following is the smallest?

Possible Answers:

$(xy)^2$

$x^2 + y^2$

$(x + y)^2$

$x - y$

$x + y$

**Question 3:**

Which of the following is less than  $\frac{3}{8}$ ?

Possible Answers:

0.40

$\frac{2}{5}$

$\frac{2}{4}$

0.25

**Question 4:**

Given that  $4 \leq A \leq 5$  and  $2 \leq B \leq 3$ , what is the range of possible values for  $A - B$ ?

Possible Answers:

$1 \leq A - B \leq 3$

$2 \leq A - B \leq 8$

$1 \leq A - B \leq 7$

$0 \leq A - B \leq 2$

$2 \leq A - B \leq 6$

**Question 5:**

If  $x + y = 10$  and  $xy = 20$ , then evaluate  $x - y$ .

Possible Answers:

$$-5\sqrt{2}$$

It cannot be determined from the information given.

$$-2\sqrt{5}$$

$$5\sqrt{2}$$

$$2\sqrt{5}$$

### Question 6:

Galactic Bounty Hunters, Inc has two departments: Trainees and Veterans. If on an average week, the each member of the Trainee department arrests  $\frac{3}{5}$  as many criminals as each member of the Veteran department, but the Veteran department has  $\frac{1}{3}$  as many members as the Trainee department, what fraction of the arrests were made by the members of the Veteran department?

Possible Answers:

$$\frac{1}{5}$$

$$\frac{2}{11}$$

$$\frac{17}{39}$$

$$\frac{1}{2}$$

$$\frac{5}{14}$$

### Question 7:

Find the result and simplify the following expression:  $\frac{1}{1 - \frac{2}{5}} + \frac{1}{1 + \frac{1}{5}}$

Possible Answers:

$$\frac{5}{2}$$

$$\frac{5}{6}$$

$$\frac{15}{6}$$

$$\frac{10}{9}$$

$$\frac{9}{5}$$

**Question 8:**

Which of the following is false?

Possible Answers:

$$\frac{a}{b} \times \frac{c}{d} = \frac{ac}{bd}$$

$$\frac{p}{mn}$$

None of the other answers.

$$\frac{a}{b} + \frac{c}{d} = \frac{a+c}{bd}$$

$$\frac{m}{n} + \frac{p}{q} = \frac{qm+pn}{qn}$$

**Question 9.**

What is the least common denominator of the following fractions?

$$\frac{7}{5}, \frac{8}{15}, \frac{2}{3}$$

Possible Answers:

15

45

60

10

30

**Question 10.**

What value must  $k$  take in order for the following expression to be greater than zero?

$$\frac{3}{k} - \frac{5}{7}$$

Possible Answers:

8

6

5

7

4

**11.**

$$\frac{2}{3} + \frac{3}{4} + \frac{5}{6} =$$

Possible Answers:

$\frac{7}{3}$

$\frac{9}{4}$

$\frac{27}{4}$

$\frac{14}{3}$

$\frac{11}{6}$

### Question 12.

Which of the following is less than  $\frac{5}{8}$ ?

Possible Answers:

$$\frac{5}{6}$$

$$\frac{7}{6}$$

$$\frac{1}{2}$$

$$\frac{3}{4}$$

$$\frac{2}{3}$$

### Question 13.

Define an operation  $*$  as follows:

For all real numbers  $a, b$ ,

$$a * b = \frac{1}{4}a + b^2$$

Evaluate  $\frac{2}{3} * \frac{1}{3}$ .

Possible Answers:

$$\frac{2}{15}$$

None of the other responses is correct.

$$\frac{1}{4}$$

$$\frac{5}{18}$$

$$\frac{1}{16}$$

**Question 14.**

Casius has  $\frac{1}{6}$  of a liter of water. Olivar has  $\frac{4}{7}$  of the amount Casius has. How many liters of water does Olivar have?

Possible Answers:

$$\frac{7}{24}$$

$$\frac{1}{4}$$

$$\frac{7}{6}$$

$$\frac{2}{21}$$

$$\frac{6}{7}$$

**Question 15.**

Define an operation  $*$  as follows:

For all real numbers  $a, b$ ,

$$a * b = 2a \div b$$

Evaluate  $5\frac{1}{6} * 3\frac{1}{3}$ , and round to the nearest whole number.

Possible Answers:

3

4

5

6

2



**Question 16.**

Seven thirds of eighteen seventieths is what?

Possible Answers:

Five thirds

Three sevenths

Seven fifths

Seven sixths

Three fifths

**Question 17.**

One orange yields  $\frac{1}{3}$  cup of juice; one gallon is equal to 16 cups. How many oranges are needed to yield one half gallon of orange juice?

Possible Answers:

16

30

24

28

18

**Question 18.**

Raise  $\frac{15}{75}$  to the fourth power and express the result in lowest terms.

Possible Answers:

$$\frac{1}{125}$$

$$\frac{1}{1,296}$$

$$\frac{1}{216}$$

$$\frac{1}{625}$$

$$\frac{1}{256}$$

**Question 19.**

Evaluate:  $\left(\frac{3}{7}\right)^4 + \left(-\frac{3}{7}\right)^4$

Possible Answers:

$$\frac{162}{2,401}$$

$$\frac{1,296}{2,401}$$

$$\frac{162}{2,401}$$

$$\frac{1,296}{2,401}$$

$$0$$

**Question 20.**

Evaluate:  $-\left(\frac{5}{8}\right)^4 + \left(-\frac{5}{8}\right)^4$

Possible Answers:

-5

$-\frac{625}{4,096}$

0

5

$\frac{625}{4,096}$