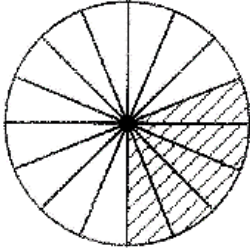# (Olympiad Comprehensive Question)

# (IMO)

1.  **Represent the shaded part as a fraction and choose the correct option.**

    

    (a) It is a proper fraction

    (b) It is an improper fraction

    (c) It is a-mixed fraction

    (d) It is a unit fraction

    (e) None of these

2.  **Change the fraction $\dfrac{1255}{8}$ into mixed fraction and choose the correct option.**

    (a) $156\dfrac{8}{7}$          (b) $165\dfrac{8}{7}$

    (c) $165\dfrac{7}{8}$          (d) $156\dfrac{7}{8}$

    (e) None of these

3.  **Which one of the following is not correct?**

    (a) Value of a proper fraction is less than 1

    (b) Value of an improper fraction is greater than 1

    (c) Value of equivalent fractions are same

    (d) Value of a mixed fraction is less than 1

    (e) None of these

4.  **Jack cuts a paper sheet into 56 equal parts, He colours all the parts with different colours. If red parts out of total parts represents $\dfrac{13}{28}$, how many parts did jack coloured with red?**

    (a) 13          (b) 26

    (c) 39          (d) 52

    (e) None of these

**5.** In which one of the following fractions, unshaded part of the whole figure represents unit fraction?

(a) 

(b) 

(c) 

(d) 
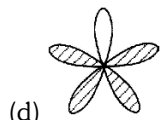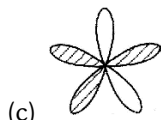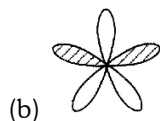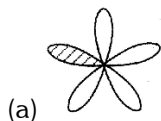
(e) None of these

**6.** Which one of the following is an equivalent fraction for $\dfrac{260}{312}$?

(a) $\dfrac{5}{13}$

(b) $\dfrac{6}{13}$

(c) $\dfrac{5}{6}$

(d) $\dfrac{6}{7}$

(e) None of these

**7.** Choose the correct option from the following.

(a) $\dfrac{5}{13}$

(b) $\dfrac{6}{13}$

(c) $\dfrac{5}{6}$

(d) $\dfrac{6}{7}$

(e) None of these

**8.** Convert the mixed fraction $154\dfrac{5}{9}$ into improper fraction.

(a) $\dfrac{1931}{9}$

(b) $\dfrac{1391}{9}$

(c) $\dfrac{1911}{9}$

(d) $\dfrac{1191}{9}$

(e) None of these

**9.** Arrange the following fractions in ascending order.

$$\dfrac{17}{19}, \dfrac{13}{19}, \dfrac{23}{22}, \dfrac{15}{17}$$

(a) $\dfrac{17}{19} < \dfrac{13}{19} < \dfrac{23}{22} < \dfrac{15}{17}$

(b) $\dfrac{13}{19} < \dfrac{17}{19} < \dfrac{23}{22} < \dfrac{15}{17}$

(c) $\dfrac{13}{19} < \dfrac{17}{19} < \dfrac{15}{17} < \dfrac{23}{22}$
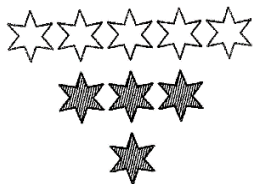
(d) $\dfrac{13}{19} < \dfrac{15}{17} < \dfrac{17}{19} < \dfrac{23}{22}$

(e) None of these

10. **Which one of the following is not an equivalent fraction of** $\dfrac{3}{5}$ **?**

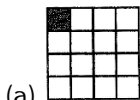   (a) $\dfrac{768}{1280}$                              (b) $\dfrac{7509}{12515}$

   (c) $\dfrac{369}{625}$                              (d) $\dfrac{513}{855}$

   (e) None of these

11. **Represent the shaded stars out of total stars in the following figure as a fraction.**

   

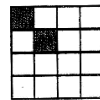   (a) $\dfrac{4}{9}$                              (b) $\dfrac{2}{3}$

   (c) $\dfrac{1}{9}$                              (d) $\dfrac{2}{9}$

   (e) None of these

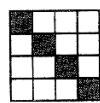12. **In which one of the following figures shaded part represents** $\dfrac{1}{16}$ **?**

   

   (e) None of these

13. **Two fractions are called like fractions, if they have same:**

   (a) Numerator                        (b) Denominator

   (c) Whole number part          (d) All of these

   (e) None of these

14. $\dfrac{a}{b}$ **is a fraction. If a is smaller than b,** $\dfrac{a}{b}$ **is a:**

   (a) Unit fraction                     (b) Proper fraction

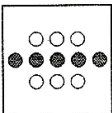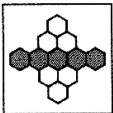   (c) Improper fraction            (d) Mixed fraction
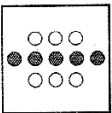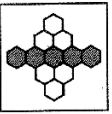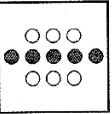
   (e) None of these

15. Convert the fraction $\dfrac{209}{12}$ into a mixed faction.

(a) $12\dfrac{5}{17}$ 

(b) $5\dfrac{12}{17}$

(c) $16\dfrac{5}{12}$ 

(d) $17\dfrac{5}{12}$

(e) None of these

16. Convert the mixed fraction $6\dfrac{1}{8}$ into an improper fraction.

(a) $\dfrac{29}{8}$ 

(b) $\dfrac{45}{8}$

(c) $\dfrac{49}{8}$ 

(d) $\dfrac{53}{8}$

(e) None of these

17. Represent the shaded part in the figure given in the options as a fraction and choose the correct option.

(a) 

(b) 

(c) 

(d) All of these

(e) None of these

18. Which one of the following options has a pair of equivalent fraction?

(a) $\dfrac{7}{8},\dfrac{56}{72}$ 

(b) $\dfrac{12}{25},\dfrac{48}{100}$

(c) $\dfrac{9}{14},\dfrac{45}{76}$ 

(d) $\dfrac{11}{14},\dfrac{55}{76}$

(e) None of these

19. Write the fraction $\dfrac{90}{145}$ in its lowest form.

(a) $\dfrac{18}{45}$ 

(b) $\dfrac{18}{29}$

(c) $\dfrac{9}{26}$ 

(d) $\dfrac{16}{29}$

(e) None of these

**20.** Which one of the following is an equivalent fraction of $\dfrac{12}{27}$ ?

(a) $\dfrac{2}{9}$

(b) $\dfrac{3}{9}$

(c) $\dfrac{4}{9}$

(d) $\dfrac{5}{9}$

(e) None of these

**21.** Jack cuts a 90 m wire into five equal pieces. Which one of the following fractions represents length of each piece of wire out of total length?

(a) $\dfrac{1}{9}$ m

(b) $\dfrac{2}{9}$ m

(c) $\dfrac{1}{18}$ m

(d) $\dfrac{1}{9}$ m

(e) None of these

**22.** Find the greatest fraction from the given fractions. $\dfrac{15}{22}, \dfrac{18}{23}, \dfrac{16}{23}, \dfrac{13}{23}$

(a) $\dfrac{15}{23}$

(b) $\dfrac{16}{23}$

(c) $\dfrac{18}{23}$

(d) $\dfrac{13}{23}$

(e) None of these

**23.** Find the smallest fraction from the following. $\dfrac{15}{47}, \dfrac{13}{47}, \dfrac{14}{47}, \dfrac{12}{47}$

(a) $\dfrac{15}{47}$

(b) $\dfrac{13}{47}$

(c) $\dfrac{14}{47}$

(d) $\dfrac{12}{47}$

(e) None of these

**24.** There are 25 questions in a question paper. Codi solves 20 questions. Which one of the following fractions represents the questions solved by codi out of total question?

(a) $\dfrac{1}{5}$

(b) $\dfrac{2}{5}$

(c) $\dfrac{3}{5}$

(d) $\dfrac{4}{5}$

(e) None of these

**25.** Arrange the following fractions in ascending order:

$$\frac{4}{15}, \frac{2}{15}, \frac{11}{15}, \frac{7}{15}$$

(a) $\dfrac{11}{15} < \dfrac{7}{15} < \dfrac{4}{15} < \dfrac{2}{15}$

(b) $\dfrac{2}{15} < \dfrac{4}{15} < \dfrac{11}{15} < \dfrac{7}{15}$

(c) $\dfrac{2}{15} < \dfrac{4}{15} < \dfrac{7}{15} < \dfrac{11}{15}$

(d) $\dfrac{7}{15} < \dfrac{4}{15} < \dfrac{2}{15} < \dfrac{11}{15}$

(e) None of these

**26.** Arrange the following factions in descending order:

(a) $\dfrac{23}{22} < \dfrac{23}{18} < \dfrac{23}{17} < \dfrac{23}{12}$

(b) $\dfrac{23}{22} < \dfrac{23}{17} < \dfrac{23}{18} < \dfrac{23}{15}, \dfrac{23}{12}$

(c) $\dfrac{23}{15} < \dfrac{23}{12} < \dfrac{23}{22} < \dfrac{23}{17}, \dfrac{23}{18}$

(d) $\dfrac{23}{12} < \dfrac{23}{15} < \dfrac{23}{17} < \dfrac{23}{18}, \dfrac{23}{22}$

(e) None of these

**27.** Which one of the following is not true?

(a) $\dfrac{12}{19} > \dfrac{15}{17}$

(b) $\dfrac{15}{19} > \dfrac{13}{17}$

(c) $\dfrac{16}{19} > \dfrac{12}{17}$

(d) $\dfrac{14}{17} > \dfrac{16}{23}$

(e) None of these

**28.** Arrange the following fractions in ascending order"

$$\frac{4}{97}, \frac{92}{97}, \frac{64}{97}, \frac{1}{97}$$

(a) $\dfrac{4}{97} < \dfrac{1}{97} < \dfrac{64}{97} < \dfrac{92}{97}$

(b) $\dfrac{92}{97} < \dfrac{1}{97} < \dfrac{64}{97} < \dfrac{4}{97}$

(c) $\dfrac{64}{97} < \dfrac{1}{97} < \dfrac{92}{97} < \dfrac{4}{97}$

(d) $\dfrac{1}{97} < \dfrac{4}{97} < \dfrac{64}{97} < \dfrac{92}{97}$

(e) None of these

**29.** Arrange the following in descending order: $\dfrac{18}{27}, \dfrac{15}{27}, \dfrac{22}{27}, \dfrac{19}{27}$

(a) $\dfrac{22}{27} > \dfrac{19}{27} > \dfrac{18}{27} > \dfrac{15}{27}$

(b) $\dfrac{19}{27} > \dfrac{22}{27} > \dfrac{15}{27} > \dfrac{18}{27}$

(c) $\dfrac{18}{27} > \dfrac{15}{27} > \dfrac{22}{27} > \dfrac{19}{27}$

(d) $\dfrac{15}{27} > \dfrac{22}{27} > \dfrac{19}{27} > \dfrac{18}{27}$

(e) None of these

30. A vessel contains 20 L solution. Out of which 6 L is hydrochloric acid and 14 L is water. Represent the amount of hydrochloric acid out of total amount of solution as a fraction.

(a) $\dfrac{7}{10}$

(b) $\dfrac{3}{10}$

(c) $\dfrac{3}{5}$

(d) $\dfrac{1}{7}$

(e) None of these

31. Find the like fractions from the following:

$$\dfrac{2}{5},\dfrac{3}{7},\dfrac{3}{5},\dfrac{4}{5},\dfrac{6}{7},\dfrac{7}{8}$$

(a) $\dfrac{2}{3},\dfrac{3}{7}$

(b) $\dfrac{2}{5},\dfrac{3}{5},\dfrac{4}{5}$

(c) $\dfrac{6}{7},\dfrac{7}{8}$

(d) $\dfrac{4}{5},\dfrac{6}{7}$

(e) None of these

32. Which of the following fractions is in its simplest form:

(a) $\dfrac{15}{36}$

(b) $\dfrac{16}{40}$

(c) $\dfrac{8}{17}$

(d) $\dfrac{12}{33}$

(e) None of these

33. Jose watched fifty planes landing. Half of them were from skyway airlines. Represent the number of planes from skyway airlines to total planes is fraction:

(a) $\dfrac{1}{3}$

(b) $\dfrac{3}{4}$

(c) $\dfrac{1}{2}$

(d) $\dfrac{4}{3}$

(e) None of these

34. Write the following fractions in ascending order: $\dfrac{1}{2},\dfrac{1}{4},\dfrac{1}{8},\dfrac{1}{16}$

(a) $\dfrac{1}{2}<\dfrac{1}{4}<\dfrac{1}{8}<\dfrac{1}{16}$

(b) $\dfrac{1}{8}<\dfrac{1}{2}<\dfrac{1}{4}<\dfrac{1}{16}$

(c) $\dfrac{1}{16}<\dfrac{1}{8}<\dfrac{1}{4}<\dfrac{1}{2}$

(d) $\dfrac{1}{16}<\dfrac{1}{8}<\dfrac{1}{2}<\dfrac{1}{4}$

(e) None of these

**35.** Write the following numbers in descending order: $\dfrac{9}{10}, \dfrac{7}{10}, \dfrac{2}{10}, \dfrac{5}{10}$

(a) $\dfrac{9}{10} > \dfrac{7}{10} > \dfrac{5}{10} > \dfrac{2}{10}$

(b) $\dfrac{2}{10} > \dfrac{5}{10} > \dfrac{9}{10} > \dfrac{7}{10}$

(c) $\dfrac{5}{10} > \dfrac{2}{10} > \dfrac{9}{10} > \dfrac{7}{10}$

(d) $\dfrac{7}{10} > \dfrac{9}{10} > \dfrac{5}{10} > \dfrac{2}{10}$

(e) None of these

**36.** Which one of the following is greatest: $\dfrac{1}{4}, \dfrac{2}{4}, \dfrac{1}{3}, 1$

(a) $\dfrac{1}{4}$

(b) $\dfrac{2}{4}$

(c) $\dfrac{1}{3}$

(d) 1

(e) None of these

**37.** Pick the odd one out:

(a) $\dfrac{1}{5}$

(b) $\dfrac{3}{5}$

(c) $\dfrac{2}{5}$

(d) $\dfrac{1}{4}$

(e) None of these

**38.** Which one of the following is different from the other?
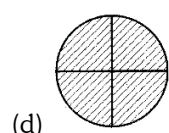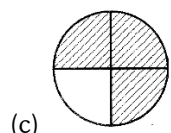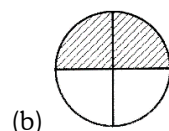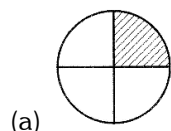
(a) $\dfrac{9}{4}$

(b) $\dfrac{2}{3}$

(c) $\dfrac{6}{5}$

(d) $\dfrac{9}{7}$

(e) None of these

**39.** Which one of the following figures gives the shaded part of the circle equal to $\dfrac{3}{4}$ ?



(a)

(b)

(c)

(d)

(e) None of these

**40.** In a Can, 16 liters liters capacity of can. Which of the following gives the fraction of milk in the can?

(a) $\dfrac{4}{5}$                       (b) $\dfrac{2}{3}$

(c) $\dfrac{3}{5}$                       (d) $\dfrac{1}{4}$

(e) None of these

| ANSWER - KEY | | | | |
|---|---|---|---|---|
| **1.** A | **2.** D | **3.** D | **4.** B | **5.** D |
| **6.** C | **7.** C | **8.** B | **9.** D | **10.** C |
| **11.** A | **12.** A | **13.** B | **14.** B | **15.** D |
| **16.** C | **17.** C | **18.** B | **19.** B | **20.** C |
| **21.** C | **22.** C | **23.** D | **24.** D | **25.** C |
| **26.** D | **27.** A | **28.** D | **29.** A | **30.** B |
| **31.** B | **32.** C | **33.** C | **34.** C | **35.** A |
| **36.** D | **37.** D | **38.** B | **39.** C | **40.** A |