Math Worksheet for 5th Grade

Dividing unit fractions by whole numbers

Name: Due Date: Teacher: Parent Sign:

1. Compute: $(\frac{1}{2}) \div 3$.

2. Compute: $(\frac{1}{3}) \div 4$.

3. Compute: $(\frac{1}{4}) \div 5$.

4. Compute: $(\frac{1}{5}) \div 2$.

5. Compute: $(\frac{1}{6}) \div 3$.

6. Compute: $(\frac{1}{8}) \div 4$.

7. Compute: $(\frac{1}{10}) \div 5$.

8. Compute: $(\frac{1}{12}) \div 6$.

9. Compute: $(\frac{1}{7}) \div 2$.

10. Compute: $(\frac{1}{9}) \div 3$.

11. Visual: Draw a rectangle and shade $\frac{1}{2}$ of it. Then divide the shaded half into 3 equal parts. What fraction of the whole is one of those small parts?

12. Visual: Draw a circle and shade $\frac{1}{3}$ of it. Divide that shaded third into 4 equal pieces. What fraction of the whole circle is one piece?

13. Visual: A bar shows $\frac{1}{4}$ of a cake shaded. If that shaded $\frac{1}{4}$ is divided equally among 6 people, what fraction of the whole cake does each person get? (Show by drawing or explain.)

14. Word problem: Sofia has $\frac{1}{3}$ of a pizza left. She gives that $\frac{1}{3}$ equally to 5 friends. How much pizza does each friend get?

15. Word problem: A recipe calls for $\frac{1}{2}$ cup of oil, but you want to divide that amount into 4 equal small bowls. How much oil is in each small bowl?

16. Word problem: Liam has $\frac{1}{5}$ of a chocolate bar. He breaks that $\frac{1}{5}$ into 3 equal pieces to share. How much of the whole bar is each piece?

17. Compute: $(\frac{1}{11}) \div 2$.

18. Compute: $(\frac{1}{15}) \div 3$.

19. Visual: A number line shows the interval from 0 to 1 divided into 8 equal parts. Shade the first part $(\frac{1}{8})$. Now divide that shaded $\frac{1}{8}$ into 2 equal pieces. What is each piece as a fraction of the whole?

20. Word problem: A ribbon of length $\frac{1}{4}$ meter is cut into 8 equal pieces. What is the length of each piece?

21. Compare: Which is larger – $(\frac{1}{6}) \div 2$ or $(\frac{1}{12})$? Explain or compute to show.

22. Compute: $(\frac{1}{2}) \div 6$.

23. Compute: $(\frac{1}{3}) \div 9$.

24. Visual: A square is divided into 5 equal vertical strips. Shade one strip $(\frac{1}{5})$. Then divide that shaded strip into 3 equal smaller rectangles. What fraction of the whole square is one small rectangle?

25. Word problem: A juice container is $\frac{1}{6}$ full. You pour that remaining $\frac{1}{6}$ equally into 3 cups. How much juice is in each cup (fraction of the whole container)?

26. Compute: $(\frac{1}{14}) \div 7$.

27. Compute: $(\frac{1}{4}) \div 2$.

28. Word problem: Noah has $\frac{1}{9}$ of a yard of fabric. He wants to cut that piece into 3 equal pieces. How much fabric is each piece (fraction of a yard)?

29. Visual: You have a circle divided into 10 equal sectors. Shade one sector $(\frac{1}{10})$. Now divide that shaded sector into 5 equal parts. What fraction of the whole is each small part?

30. Compute: $(\frac{1}{20}) \div 4$.

31. Word problem: A plant pot is $\frac{1}{3}$ full of soil. You divide that soil equally into 6 pots. What fraction of a full pot does each of the 6 new pots get?

32. Compute: $(\frac{1}{16}) \div 2$.

33. Visual: Draw a strip representing 1 whole, shade $\frac{1}{2}$. Then partition that shaded part into 5 equal parts. What is the size of each small part as a fraction of the whole?

34. Word problem: Emma has 1 whole cookie $(\frac{1}{1})$. She breaks it into 8 equal pieces and then gives one-eighth to each of 2 friends equally from one of those pieces. If she divides one $\frac{1}{8}$ piece into 2 equal parts, what fraction of the whole cookie is each of those tiny parts? (This asks you to divide a unit fraction by a whole number.)

35. Compute: $(\frac{1}{18}) \div 3$.

36. Compute: $(\frac{1}{2}) \div 8$.

37. Word problem: A tank holds $\frac{1}{7}$ of its capacity in clean water. That $\frac{1}{7}$ is divided equally among 2 smaller tanks. How much of the original tank is each smaller tank getting?

38. Visual: A rectangle is split into 12 equal squares. Shade one square $(\frac{1}{12})$. Now split that one square into 3 equal parts visually. What fraction of the whole rectangle is each tiny part?

39. Compute: $(\frac{1}{3}) \div 2$.

40. Compute: $(\frac{1}{25}) \div 5$.

41. Word problem: A baker used $\frac{1}{8}$ of a bag of flour for a recipe. She measures that $\frac{1}{8}$ into 4 identical jars. What fraction of the whole bag is each jar holding?

42. Visual: Show $\frac{1}{6}$ on a number line and then divide that segment into 3 equal pieces. What fraction of the whole number line segment from 0 to 1 is each small piece?

43. Compute: $(\frac{1}{13}) \div 2$.

44. Word problem: A volunteer has $\frac{1}{10}$ of a day's time to spend at a shelter. She splits that time equally over 5 days. What fraction of the whole day does she spend each day?

45. Compute: $(\frac{1}{21}) \div 3$.

46. Word problem: A teacher has $\frac{1}{4}$ of a box of markers left. She gives that $\frac{1}{4}$ equally to 4 groups of students. How many markers does each group get as a fraction of the whole box?

47. Compute: $(\frac{1}{30}) \div 6$.

48. Visual/Reasoning: If you divide $(\frac{1}{2})$ by 3 you get $\frac{1}{6}$. Use that idea to explain why $(\frac{1}{2}) \div 3$ is smaller than $\frac{1}{2}$ but bigger than $(\frac{1}{12})$.

49. Compute: $(\frac{1}{2}) \div 12$.

50. Word problem: A ribbon $\frac{1}{5}$ meter long is shared equally among 10 friends. How much ribbon does each friend get?