

Assignment:

Page 101 # 22 – 30, 38 – 40, 52 – 54

Solve.

22. $\frac{4}{9} = \frac{r+3}{45}$

23. $\frac{2.8}{1.5} = \frac{t}{0.09}$

24. $\frac{9+m}{5} = \frac{15}{4}$

25. $\frac{2}{u-5} = \frac{6}{9}$

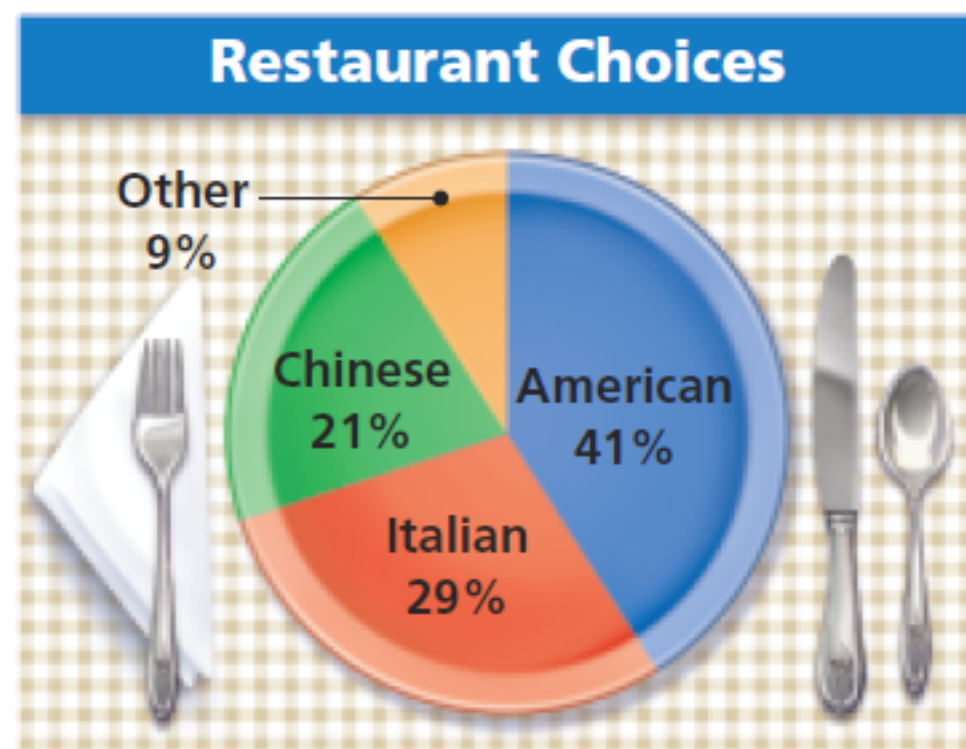
26. $\frac{12}{27} = \frac{3r}{3}$

27. $\frac{-11}{0.11h} = \frac{10}{3}$

28. $\frac{25}{75} = \frac{80}{5x}$

29. $\frac{0}{17} = \frac{0.5x}{170}$

30. **Food** A sample of students was asked what type of restaurant they visit most often. Their answers are shown in the circle graph. If 126 students chose Chinese restaurants, how many students were polled?



Use the following for Exercises 38–40.

Grade is a measure of the steepness of surfaces, such as roads and ramps. Grade is expressed as a percent based on the ratio $\frac{\text{vertical rise}}{\text{horizontal run}}$. For example, a ramp that is 5 feet long and rises 1 foot has a grade of $\frac{1}{5}$, or 20%.

38. Construction A crew is building a stretch of road with a vertical rise of 15 m and a horizontal run of 375 m. Find the grade of the road.

39. Fitness A treadmill has a 9% grade. If the treadmill has a horizontal run of 5 feet, what is the treadmill's vertical rise in inches?

40. Accessibility The Americans with Disabilities Act set the maximum grade for wheelchair-accessible ramps at $8\frac{1}{3}\%$. What is the minimum horizontal run in feet required for a ramp designed to rise 30 inches?



Solve.

52. $\frac{-2}{x+5} = \frac{8}{x-3}$

53. $\frac{h+4}{9} = \frac{h-3}{4}$

54. $\frac{n-2}{4} = \frac{3n+3}{18}$