

Student's Name \_\_\_\_\_

## Summer Packet for Students entering Consumer Math

**Show your work throughout this Summer Packet!**

Convert the percentage to an equivalent "calculation ready" decimal by moving the decimal point two places to the left. Use the decimal to answer the question when needed.

Examples: $86\% = .86$ $5\% = .05$ $127\% = 1.27$ $13.8\% = .138$ $3\frac{1}{2}\% = 3.5\% = .035$	1. $56\% =$	2. $4.85\% =$
3. $267\% =$	4. $8\% =$	5. $3\frac{3}{4}\% =$
6. $0.6\% =$	7. $12\frac{1}{2}\% =$	8. $5\frac{3}{8}\% =$
Example: What is 35% of 80? $35\% = .35$ $N = .35 \times 80$ $N = 28$	Example: 24.6 is 20.5% of what number? $24.6 = .205 \times N$ $\frac{24.6}{.205} = N$ $120 = N$	9. What is 14% of 58 ?
10. What is $3\frac{1}{2}\%$ of 420 ?	11. If Jon had \$48.60 and he gave 40% to Jill, what did Jill receive?	12. 89.6 is 35% of what?
13. 1008 is 3.6% of what?	14. If Sonja spends 24% of the money in her purse on clothes, she spends \$420. How much money is left in her purse?	

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Convert the decimal to an equivalent percentage by moving the decimal point two places to the right. When needed, answer the question, then convert the decimal to an equivalent percentage.

<p>Examples:</p> $.26 = 26\%$ $5.8 = 580\%$ $.281 = 28.1\%$ $.065 = 6.5\%$ $.004 = 0.4\%$	<p>15.</p> $.34 =$	<p>16.</p> $.05 =$
<p>17.</p> $.0482 =$	<p>18.</p> $2.352 =$	<p>19.</p> $.0256 =$
<p>20.</p> $.8 =$	<p>21.</p> $3 =$	<p>Example: 18 is what percent of 24 ?</p> $18 = P \times 24$ $\frac{18}{24} = P$ $.75 = P$ $75\% = P$
<p>22. 24 is what percent of 40 ?</p>	<p>23. 40 is what percent of 24 ?</p>	<p>24. What percent of 30 is 12 ?</p>
<p>25. What percent of 15 is 30 ?</p>	<p>26. If John gave away \$25 of his \$30 dollars what percent did he have left?</p>	<p>27. 21 is what percent of 35 ?</p>

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In the following problems involving money, round the answer to the nearest cent if necessary.

<p>Example:  <math>\\$35.65 + \\$42.50 + \\$8 = ?</math></p> $\begin{array}{r} \$35.65 \\ 42.50 \\ +8.00 \\ \hline \$86.15 \end{array}$	<p>Example:  <math>\\$365.10 \div 3 = ?</math></p> $\begin{array}{r} \$121.70 \\ 3 \overline{) 365.10} \end{array}$	<p>Example:  <math>\\$47.18 \times 6 = ?</math></p> $\begin{array}{r} \$47.18 \\ \times 6.2 \\ \hline 292.516 \\ \$292.52 \end{array}$
<p>28.  <math>\\$36.80 + \\$456 + \\$3.18 = ?</math></p>	<p>29.  <math>\\$45.68 + \\$328.02 - \\$59.74 = ?</math></p>	<p>30.  <math>\\$846.21 \times 3.8 = ?</math></p>
<p>31.  <math>\\$653.61 \div 3 = ?</math></p>	<p>32.  <math>\\$4568.25 \div 12 = ?</math></p>	<p>33.  <math>\\$367 - \\$47.63 = ?</math></p>
<p>34.  <math>\\$496.38 - \\$122.22 + \\$38.70 = ?</math></p>	<p>35. If you paid \$45 a month for car insurance, how much would you pay in a year?</p>	<p>36. If the yearly bank service charge is \$49.32. What is the charge each month?</p>
<p>37. If Jack has \$58 all in two-dollar bills, how many two-dollar bills does Jack have?</p>	<p>38. Jamila had \$4500 invested in her printing business. When she dissolved the business she had three times that amount. Then she divided that amount evenly between her and four friends. How much did each friend receive?</p>	

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Use the rules of fractions to answer the following questions.

<p>Example: <math>\frac{2}{3} \times 231 = ?</math></p> $\frac{2}{3} \times \frac{231}{1} = \frac{462}{3} = 154$ <p>Example: <math>\frac{3}{5} \div \frac{6}{11} = ?</math></p> $\frac{3}{5} \div \frac{6}{11} =$ $\frac{3}{5} \times \frac{11}{6} = \frac{33}{30} = \frac{11}{10} = 1\frac{1}{10}$	<p>Example: <math>3\frac{4}{5} + 2\frac{3}{8} = ?</math></p> $\begin{array}{r} 3\frac{4}{5} = 3\frac{32}{40} \\ + 2\frac{3}{8} = 2\frac{15}{40} \\ \hline 5\frac{47}{40} \\ 6\frac{7}{40} \end{array}$	<p>Example: <math>4\frac{1}{8} - 2\frac{3}{4} = ?</math></p> $\begin{array}{r} 4\frac{1}{8} \Rightarrow 4\frac{1}{8} \Rightarrow 3\frac{9}{8} \\ - 2\frac{3}{4} \Rightarrow -2\frac{6}{8} \Rightarrow -2\frac{6}{8} \\ \hline 1\frac{3}{8} \end{array}$
<p>39.</p> $\frac{3}{5} + \frac{1}{10} = ?$	<p>40.</p> $3\frac{1}{4} + 5\frac{2}{3} = ?$	<p>41.</p> $\frac{3}{5} + \frac{2}{3} + \frac{5}{6} = ?$
<p>42.</p> $\frac{4}{5} \times \frac{1}{2} = ?$	<p>43.</p> $\frac{10}{9} \times 6 = ?$	<p>44.</p> $3\frac{1}{8} \times 4 = ?$
<p>45.</p> $\frac{4}{7} \div \frac{3}{14} = ?$	<p>46.</p> $\frac{6}{5} \div 4 = ?$	<p>47.</p> $3\frac{1}{2} \div \frac{5}{6} = ?$
<p>48.</p> $\frac{5}{6} - \frac{3}{4} = ?$	<p>49.</p> $3\frac{1}{8} - 1\frac{3}{4} = ?$	<p>50.</p> $7 - 2\frac{1}{5} = ?$

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Solve the proportions by cross-multiplying and then solving for the variable.

<p>Example: <math>\frac{4}{5} = \frac{x}{6}</math></p> $5x = 4 \times 6$ $5x = 24$ $\frac{5x}{5} = \frac{24}{5}$ $x = 4\frac{4}{5}$	<p>Example: <math>\frac{3}{10} = \frac{12}{x}</math></p> $3x = 10 \times 12$ $3x = 120$ $\frac{3x}{3} = \frac{120}{3}$ $x = 40$	<p>Example: <math>\frac{1}{3} = \frac{2}{x}</math></p> $\frac{1}{3}x = 5 \times 2$ $\frac{1}{3}x = 10$ $3 \times \frac{1}{3}x = 10 \times 3$ $x = 30$
<p>51.</p> $\frac{4}{x} = \frac{8}{6}$	<p>52.</p> $\frac{3}{5} = \frac{x}{7}$	<p>53.</p> $\frac{15}{x} = \frac{3}{5}$
<p>54.</p> $\frac{4}{9} = \frac{7}{x}$	<p>55.</p> $\frac{1}{5} = \frac{2}{x}$	<p>56.</p> $\frac{1}{4} = \frac{x}{8}$
<p>57. Solve:</p> $16 \times 5 + N = 40$	<p>58. Solve:</p> $N \div 16 = 224$	<p>59. Solve:</p> $456 - N = 259$