Fraction Review Sheet

Fractions are always reduced to their lowest form.

Add the following fractions.

$\frac{8}{12}+\frac{3}{12}$

$\frac{8}{44}+\frac{11}{44}=\boxed{\frac{19}{44}}$

1. $\frac{4\times2}{4\times3}+\frac{3\times1}{3\times4}=$ $\boxed{\frac{11}{12}}$

2. $\frac{2\times4}{11\times4}+\frac{1\times11}{4\times11}=$ _____

3. $\frac{2\times5}{9\times5}+\frac{4\times9}{5\times9}=$ $\frac{46}{45}=\boxed{1\frac{1}{45}}$

4. $\frac{2\times4}{3\times4}+\frac{1}{12}+\frac{2\times3}{4\times3}=\boxed{\frac{15}{12}=1\frac{1}{4}}$ $\frac{8}{12}+\frac{1}{12}+\frac{6}{12}=\frac{15}{12}$

Practice adding mixed numbers

1. $22\frac{1}{5}+2\frac{6}{7}=$ $\frac{11\times7}{5\times7}+\frac{20\times5}{7\times5}$ $\frac{777+100}{35}=$ $\boxed{\frac{877}{35}}$ or $25\frac{2}{35}$

2. $7\frac{10}{11}+3\frac{1}{9}=$ $\boxed{\frac{1091}{99}}$ or $11\frac{2}{99}$ $\frac{87}{11}+\frac{28}{9}=\frac{783}{99}+\frac{308}{99}$

3. $5\frac{1}{12}+4\frac{3}{5}=$ $\frac{61\times5}{12\times5}+\frac{23\times12}{5\times12}=\frac{305}{60}+\frac{276}{60}=\boxed{\frac{581}{60}}$ or $9\frac{41}{60}$

Practice subtracting.

$\frac{1883}{28}-\frac{388}{28}$ $\frac{7\times269}{7\times4}-\frac{97\times4}{7\times4}$

1. $67\frac{1}{4}-13\frac{6}{7}=$ $\boxed{53\frac{11}{28}}$ $\frac{1495}{28}$

2. $17\frac{1}{5}-3\frac{3}{8}=$ $\boxed{13\frac{33}{40}}$ $\frac{86\times8}{5\times8}-\frac{27\times5}{8\times5}$ $\frac{688}{40}-\frac{135}{40}=\frac{553}{40}$

3. $44\frac{1}{3}-20\frac{1}{2}=$ $\boxed{23\frac{5}{6}}$

4. $12\frac{1}{4}-6\frac{3}{5}=$ $\boxed{\frac{113}{20}}$ or $5\frac{13}{20}$

$\frac{2\times133}{2\times3}-\frac{41\times3}{2\times3}$ $\frac{266}{6}-\frac{123}{6}=\frac{143}{6}$

$\frac{49\times5}{4\times5}-\frac{33\times4}{5\times4}$ $\frac{245}{20}-\frac{132}{20}=\frac{113}{20}$

Practice multiplying fractions.

1. $\frac{2}{3}\times\frac{5}{8}=\frac{5}{12}\Leftarrow\frac{10}{24}$

2. $\frac{5}{8}\times\frac{7}{9}=\frac{35}{72}$

3. $\frac{5}{14}\times\frac{2}{60}=\frac{1}{84}$

4. $\frac{8}{6}\times\frac{3}{30}=\frac{1}{12}$

5. $12\frac{1}{2}\times\frac{3}{7}=\frac{39}{14}$ $\frac{25}{2}\cdot\frac{3}{7}=\frac{75}{14}$

6. $5\frac{1}{2}\times6\frac{3}{5}=\frac{363}{10}$ or $36\frac{3}{10}$ $\frac{11}{2}\cdot\frac{33}{5}=\frac{363}{10}$

Practice with dividing fractions.

1. $\dfrac{18}{24} \div \dfrac{5}{6} = \underline{\dfrac{9}{10}}$ $\downarrow\ \downarrow\ \downarrow$ $\dfrac{18}{24} \cdot \dfrac{6}{5} = \dfrac{108}{120}$

2. $\dfrac{18}{30} \div \dfrac{2}{3} = \underline{\dfrac{9}{10}}$ $\dfrac{\cancel{18}^{9}}{\cancel{30}_{10}} \cdot \dfrac{3^{1}}{\cancel{2}_{1}}$

3. $\dfrac{11}{12} \div \dfrac{3}{4} = \underline{\dfrac{44}{36}}$ $\dfrac{11}{12} \cdot \dfrac{4}{3} = \dfrac{44}{36}$

4. $\dfrac{76}{100} \div \dfrac{4}{5} = \underline{\dfrac{19}{20}}$ $\dfrac{\cancel{76}^{19}}{\cancel{100}_{20}} \cdot \dfrac{5}{\cancel{4}_{1}}^{1}$

5. $12\dfrac{3}{4} \div \dfrac{1}{3} = \underline{\dfrac{153}{4} = 38\frac{1}{4}}$ $\dfrac{51}{4} \cdot \dfrac{3}{1} = \dfrac{153}{4}$

6. $12 \div \dfrac{1}{2} = \underline{24}$ $\dfrac{12}{1} \cdot \dfrac{2}{1}$

7. $\dfrac{125}{5} \div \dfrac{1}{2} = \underline{50}$ $\dfrac{\cancel{125}^{25}}{\cancel{5}_{1}} \cdot \dfrac{2}{1}$

8. $4\dfrac{2}{3} \div 2\dfrac{1}{4} = \underline{\dfrac{56}{27} = 2\frac{2}{27}}$

9. $2\dfrac{2}{5} \div \dfrac{1}{12} = \underline{\dfrac{144}{5} = 29\frac{1}{5}}$

$\dfrac{12}{5} \cdot \dfrac{12}{1}$

$\dfrac{14}{3} \div \dfrac{9}{4}$

$\dfrac{14}{3} \cdot \dfrac{4}{9} = \dfrac{56}{28}$

Complete the table below using your knowledge of fractions, decimal and percent conversions.

Problem	Fraction	Decimal	Percent
1.	$\frac{4}{5}$	0.80	80%
2.	$\frac{375}{1000} = \frac{3}{8}$	0.375	37.5%
3.	$\frac{11}{20}$ rr $\times 100$	.55	55%
4.	$\frac{7 \times 125 \; 875}{8 \text{ m}^2 \; 1000}$	0.875	87.5%
5.	$\frac{72}{100} = \frac{18}{25}$	0.72	72%
6.	$\frac{13}{20} \quad \frac{65}{100}$	0.65	65%
7.	$\frac{975}{1000} = \frac{39}{40}$	0.975	97.5%
8.	$\frac{11}{10}$	1.10	110%
9.	$\frac{105}{100}$	1.05	105%
10.	$\frac{46}{10000} = \frac{23}{5000}$	0.0046	.46%
11.	$\frac{112}{100} = \frac{28}{25}$	1.12	112%
12.	$\frac{35 \times 5 \; 175}{20 \times 5 \; 100}$	1.75	175%

1. A basketball backboard set that sold for $79 is discounted 15%. What is the sale price?

$79(.85) = \boxed{\$67.15}$

2. A parka that sold for $65 is marked up to $70.20. What is the percent of markup?

$\dfrac{70.20}{65} = 1.08$ $\boxed{8\%}$

3. A shoe store marks up its merchandise by 8%. What was the selling price of a pair of shoes whose wholesale price is $24.50?

$24.50(1.08) = \boxed{\$26.46}$

4. A grocery store has a 60% markup on a can of soup. The can of soup costs the store $1.50. What is the selling price for the can of soup?

$1.50(1.60) = \boxed{\$2.40}$

5. Mr. Quick bought a new computer system. The regular price was $1580, but he got a 15% discount. How much did he pay?

$1580(.85) = \boxed{\$1343}$

6. The regular price of a Space Invader game is $52, but it is on sale. The discount is $13. What percent discount is this?

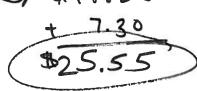$\dfrac{52}{13}$ $\dfrac{13}{52} = \boxed{25\%}$

7. A bicycle that usually sells for $230 is on sale for 25% off. Find the sale price.

$$230(.75) = \boxed{\$172.50}$$

8. A store sold a case of scented candles for $17.85 that had been marked up 110%. What was the original price?

$17.85/2.10$

8.5×2
$17.$

$\boxed{\$ \cancel{16/23}}$

17.85
$+19.64$
$\cancel{\$27.49}$

$\cancel{\$\%}$ 110% $\cancel{\times 19.64}$ 1.10

$10\% \rightarrow 1.79$

$\cancel{\$.03}$

$\dfrac{17.85}{2.10}$ $\cancel{\$8.5}$

9. Marco buys a certain brand of shampoo from a supplier at $7.25 per bottle. He sells it to his customers at a markup of 25%. What would the markup be?

$$7.25(.25) = \boxed{\$1.81}$$

10. What should Max charge for a package of paper plates in his store if he bought them for $9.00 and wants to make a 75% profit?

$9(0.75) = \cancel{\$6.75}$

$\$6.75$

$\boxed{\$ 15.75}$

11. The markup on a restaurant meal is 250%. A meal costs $7.30 to produce. How much will the customer be charged before tax and tip?

$\$18.25$
$+ \quad 7.30$
$\boxed{\$25.55}$

**12. Bob's bill for dinner at Surefire Steak House was $45. In addition, he paid 5% of the bill in tax, and he left a tip for 15% of the bill (before tax). How much did Bob spend for tax and tip combined? How much did Bob spend in all?

Tax $45(0.05) = 2.25$

Tip $= 45(.15) = \$6.75$

$\boxed{\text{tax + tip} = \$9.00}$

$\boxed{\text{Total}: \$54.00}$