

Convert the following fractions or whole numbers into percentages.

1)  $\frac{3}{5}$

2)  $\frac{5}{8}$

3)  $1\frac{1}{10}$

4)  $\frac{1}{3}$

5)  $2\frac{5}{6}$

6) 3

Convert the following decimals into percentage.

1) 0.86

2) 0.25

3) 1.005

4) 0.555

Convert the following percentages into fractions.

1) 18%

2)  $32\frac{1}{2}\%$

3)  $45\frac{5}{6}\%$

4) 85%

5)  $62\frac{4}{7}\%$

6) 120%

Convert the following percentages into decimals.

1)  $35\frac{1}{4}\%$

2) 265%

3) 0.56%

4) 67.8%

Calculate the following algebraic expression and give answer with percentages.

1)  $32\% + 0.45 - \frac{1}{5} - 10\%$

2)  $2.5 - \frac{4}{5} + 12.5\% - 1.2$

3)  $206\% - 0.83 + 24.5\% - \frac{7}{8}$

4)  $4\frac{2}{5}\% - \frac{1}{25} + 0.5 + 12\%$

5)  $5\frac{13}{50} - 2\frac{4}{25} + 32\% - 3\frac{1}{4}$

Word problems.

- 1) There are 125 students in grade 6.  $\frac{2}{5}$  of all grade 6 students are boys. How many girls are there in grade 6 ? What percentage of all grade 6 students are girls?
  
- 2) 0.75 of the students in drawing class joined a competition. There are 7 students in drawing class did not join the competition. How many students are there in the drawing class?
  
  
  
  
  
  
  
  
  
  
- 5) Cherry has 250 sweets. She gives  $12\frac{4}{5}\%$  of her sweets to Clara and also gives 25 sweets to Louise. How many sweets does Cherry have at last?

Word problems.

4)  $85\frac{5}{7}\%$  of all students pass in mathematics exam. There are 6 students failed. How many students passed the exam?

5) Kelvin has \$5000. He spent 25% and gives 15% of the rest of his money to his mum. How much does he have at last?

6) Bobby has \$380. Wendy has 28% more than Bobby. Grace has 50% less than Wendy. How much does Grace have?

Calculate the following algebraic expressions.  
(correct the answers to 2 decimal places if needed.)

1)  $12 - 2.3 \times 0.8 - 3.26$

2)  $(32.8 \div 6.4 + 1.02) \div 1.8$

3)  $15.6 \div 3 + 4.8 \div 0.5$

4)  $1.8 \times 2.7 - 3.4 \times 0.1$

5)  $0.12 \times (3.7 + 1.3) \div 6$

6)  $(31.78 - 4.2 - 0.9) \div 4.6$

7)  $41.91 \div 1.1 - 8.96 \div 0.8$

8)  $(15.7 + 3.45) \div (6.4 - 2.58)$

9)  $10.7 - 9.5 \times 0.6 \div 1.9$

10)  $32 \times 0.85 \div 6$

11)  $(3.06 \div 0.2 - 10.03) \div 0.5$

12)  $(18 + 6.5 - 3.3) \times 1.2$

Calculate the following algebraic expressions.

1) Mum mixed 2 bottles of juice into some glasses with capacity of 250mL. The capacities of 2 bottles of juice are 1.65L and 3L respectively. She wasted 0.3L of juice when pouring it out. How many glasses does she need to contain all the juice?

2) Louise has \$650. Icy has \$53 less than 0.8 of Louise's money. How much does Icy have? ?

3) A dozen of apples is sold at \$51.6. An apple is \$2.1 cheaper than an orange. What is the cost of an orange?

Word problems.

- 4) The weight of 4 apples is the same as the weight of 3 oranges. One orange has weight of 0.3kg. What is the weight of 6 apples?
- 5) Mum has \$398. One pack of candy is sold at \$28.9. One pack of chocolate is \$3.5 more expensive than one pack of candy. Mum bought 4 packs of candy and spend the rest of her money on buying chocolate. How many packs of chocolate can she buy at most?
- 6) In a party, if a teacher shares some juice to 9 students evenly, then each student will have 0.35L of juice. One more student will join the party now. How many litres of juice each student have?



Solve the following equations.

1)  $\frac{3x}{4}=12$

2)  $36-4y=8$

3)  $5y-8=17$

4)  $6(14-P)=33$

5)  $(1-14\frac{2}{7}\%)M=36$

6)  $\frac{3}{2}u-4=5$

Use equation to solve the following questions.

- 1) The number of apples William has is 5 less than 6 times of Cherry's. William has 49 apples. How many apples does Cherry have?
  
- 2) The money Chris has is 65% of Ada's. Chris has \$1820. How much does Ada have?
  
- 3) A farm has only cows and sheeps. The number of cows is  $\frac{3}{5}$  of all animals in the farm. There are 348 sheeps. How many animals are there in the farm?