



Name: _____

Date: _____

Problem Sum Worksheet

Topic : Percentage

Video Solution: <http://www.omyclassroom.com/numbers.html>



Topic 1: 4 Operation of numbers - Qn 1

Joe had \$4315 more than Kim at first. Then, Kim gave Joe \$268.
How much more money did Joe have than Kim in the end?

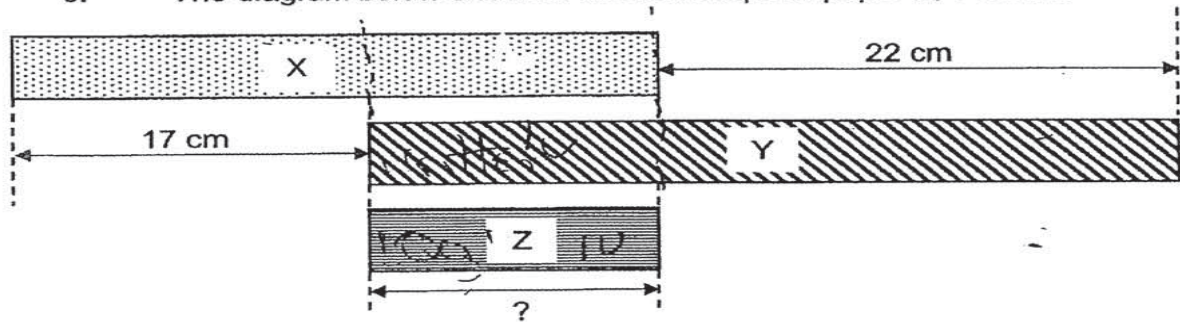
Topic 1: 4 Operation of numbers - Qn 2

Mary used 1.88 m of cloth to sew a dress. She used 0.9 m less cloth to sew a blouse. How much cloth did Mary need to sew 7 such blouses?

Leave your answer to 1 decimal place.

Topic 2: Simple unit – Qn 1

6. The diagram below shows 3 different strips of paper X, Y and Z.



Given that the total length of paper X, Y and Z is 78 cm, find the length of paper Z.



Topic 2: Simple unit – Qn 2

Si Yun paid a total amount of \$198.70 for 2 similar dresses and 4 similar pairs of shorts. Each dress cost \$38.60 more than each pair of shorts. How much did Si Yun pay for each pair of shorts?

Topic 2: Simple unit – Qn 3

Siti, Mary and Jay had some stickers. Siti had 3 times as many stickers as Jay. Siti had 22 more stickers than Mary. Mary and Jay had 58 stickers altogether. How many stickers did Siti have?

Topic 2: Simple unit – Qn 4

There are 3 boxes of books. There are 4 times as many books in Box B as in Box A. There are 138 more books in Box C than in Box B. The number of books in Box A is $\frac{1}{12}$ of the total number of books in the 3 boxes. How many books are there in Box C?

Topic 2: Simple unit – Qn 5

Mrs Chen bought 12 kg of flour and 5 kg of sugar to bake some cakes. To bake each cake, the amount of flour required is 3 times the amount of sugar. After baking 8 cakes, she had 3.16 kg of sugar and some flour left.

- (a) How many kilograms of flour were used to bake one cake?
- (b) How many kilograms of flour were left?

Topic 2: Simple unit – Qn 6

Coach Lim bought 16 identical rackets while Coach Huang bought 10 identical rackets. On top of that, Coach Huang bought some tubes of shuttlecocks for \$39.60. Coach Lim spent \$235.80 more than Coach Huang. How much does a racket cost?

Topic 2: Simple unit – Qn 7

A factory manufactured 3366 cups, plates and spoons. It manufactured 4 times as many cups as plates. The factory also manufactured 216 more spoons than plates. How many spoons were manufactured?

Topic 3 : Compare A and B with A and C unit – Qn 1

Ali and Ben had 213 stamps. Ali and Clement had 270 stamps. The ratio of the number of stamps Ben had to the number of stamps Clement had was 4 : 7. How many stamps did Ali have?

Topic 3 : Compare A and B with A and C unit – Qn 2

Lina and Melissa saved a total of \$572. Lina and Nicole saved a total of \$360. Melissa saved three times as much as Nicole. Find Lina's savings.

Topic 4 : Divide different units to the same unit size – Qn 1

Jovan has twice as many marbles as Sean. Herman has 3 times as many marbles as Jovan. Jovan has 240 fewer marbles than Herman. How many marbles do they have altogether?

Topic 5 : Box and items – Qn 1

A box $\frac{3}{8}$ filled with beans has a total mass of $5\frac{3}{4}$ kg. When the same box is completely filled with beans, the total mass is $13\frac{7}{10}$ kg. What is the mass of the box when it is empty? Leave your answer in kg.

Topic 5 : Box and items – Qn 2

The mass of a glass bottle filled with 10 identical erasers is 1200 g. The mass of the same bottle when filled with 6 such erasers is 1040 g. What is the mass of each eraser?

Topic 6 : Different unit and same total - Qn 1

Daphne spent \$252 on 12 notebooks and 6 pens. The cost of 2 pens was the same as the cost of 3 notebooks. Find the cost of 1 such pen.

Topic 6 : Different unit and same total - Qn 2

6 identical notebooks cost as much as 14 identical staplers. Each notebook costs \$5.80 more than each stapler. Find the total cost of a notebook and a stapler.

Topic 6 : Different unit and same total - Qn 3

Yen spent an equal amount of money on 8 mugs and 6 bowls. Each bowl cost \$22.20. How much less did each mug cost than each bowl?

Topic 7: Divide by incorrect divisor – Qn 1

5 boys shared the cost of a meal equally. When calculating the amount for each share, the boy who did the calculation made a mistake by dividing the cost of the meal by 4 instead of 5. Each boy paid \$3.60 more than his share. What should be the correct amount for each share?

Topic 7: Divide by incorrect divisor – Qn 2

John wrote a decimal. He wanted to multiply it by 4. Instead, he multiplied it by 7 and the answer was 1.05. What should have been the correct answer?

Topic 8 : Excess and Shortage – Qn 1

Zen spent \$255 on a bag and a belt. She wanted to buy another similar bag with the remaining money but was short of \$30. In the end, she bought another similar belt and had \$15 left in the end.

- (a) How much more did the bag cost than the belt?
- (b) How much did the belt cost?

Topic 8 : Excess and Shortage – Qn 2

Jiemin has some orange juice. If he fills 20 identical cups with the orange juice, he will have 600 ml of the orange juice left. If he tries to fill 6 identical jugs with the orange juice instead, he will be short of 400 ml of the orange juice. The capacity of a jug is the same as that of 4 such cups.

- (a) What is the capacity of a jug?
- (b) How much orange juice does Jiemin have?




Topic 9 : Free items with multiple items purchased – Qn 1

Jenny earned \$3 for every box of food that she delivered. She received an additional \$20 for every 10 boxes of food delivered. How many boxes of food did she deliver if she earned a total of \$218?

Topic 9 : Free items with multiple items purchased – Qn 2

During a sale, cooking pots and frying pans were sold at the prices shown in the table below.

Cooking pot

Buy 1 at \$810.90
Buy 2 or more at \$800 each

Frying pan

Buy 1 at \$640
Buy 2 or more at \$630.50 each

- a) Naomi bought 1 cooking pot and 4 frying pans during the sale. What was the smallest amount of money she paid?
- (b) Zechariah had \$3000. What was the greatest number of cooking pots he could buy with \$3000?



Topic 9 : Free items with multiple items purchased – Qn 3

An excursion to the zoo was arranged for 38 children. The signage below shows the price of the tickets.

Entrance ticket
Children: \$19.50 per ticket
Children's' Day Special Deal
Buy 5 tickets, get 1 ticket free.

What was the least total amount of money the children had to pay to enter the zoo?

Topic 10 : Lowest common multiple – check method – Qn 1

Ravi has some marbles. If he gives 7 marbles to each of his friends, he will have 4 marbles left. If he gives each of his friends 9 marbles, he will need another 2 more marbles. How many marbles does he have?

Topic 11 : Number and weightage – Qn 1

Gopal had some \$10-notes, \$5-notes and \$2-notes in the ratio of 11 : 7 : 4. The total value of his \$10-notes was \$3060 more than the total value of his \$2-notes.

- (a) How many \$10-notes did Gopal have at first?
- (b) What was the total value of Gopal's \$2-notes?

Topic 12 : Unit and a number – Qn 1

Mr Ahmad bought some gold rings and bracelets. A bracelet costs \$450 more than a gold ring. His money was just enough for him to buy 7 rings and 2 bracelets. In the end, he bought 2 rings and 3 bracelets. He then had \$1550 left.

- (a) How much was a gold ring?
- (b) How much was a bracelet?

Topic 13 : Used and left – Qn 1

Sri and Devi had a total of 2160 g of flour at first. Sri used twice as much flour as Devi. Devi had twice as much flour left as Sri. The mass of flour that Devi had left was 80 g more than what she had used. How much flour did Sri have at first?

Topic 13 : Used and left – Qn 2

A shopkeeper had 10 boxes of the same number of chocolates at first. She sold 24 pieces of chocolates from each boxes. The total number of chocolates left in the 10 boxes was equal to the total number of chocolates in 4 of the boxes at first. How many pieces of chocolates did the shopkeeper have at first?

Topic 14 : Grouping method – Different number of variable 1 and 2 – Qn 1

Priscilla bought some files and erasers for \$16. She bought 6 more erasers than files. A file costs 80 cents and an eraser cost 50 cents.

- (a) How many files did Priscilla buy?**
- (b) How much did Priscilla pay for the erasers?**

Topic 14 : Grouping method – Different number of variable 1 and 2 – Qn 2

June bought some chicken and mushroom pies for \$39.60. She bought 7 more mushroom pies than chicken pies. A chicken pie cost \$1.40 while a mushroom pie cost \$0.20 less than the chicken pie. How many chicken pies did June buy?

Topic 15 : 2 variable combo – Qn 1

The total cost of 5 T-shirts and 2 dresses is \$253. The total cost of 3 T-shirts and 6 dresses is \$483. How much does Emily need to pay if she wants to buy 1 T-shirt and 1 dress?

Topic 15 : 2 variable combo – Qn 2

4 blouses and 5 dresses cost \$365. The cost for 3 blouses and 7 dresses was \$433. Jenny decided to buy 4 blouses and some dresses which cost \$512 altogether. How many dresses did she buy?

Topic 16 : Grouping method – Same number of variable 1 and 2 – Qn 1

Natasha used 238 beads to make some necklaces and bracelets. She used 16 beads for each necklace and 9 beads for each bracelet. She made twice as many bracelets as necklaces. After making the necklaces and bracelets, she sold each necklace for \$25 and each bracelet for \$15.

- (a) How many bracelets did Natasha make?
- (b) Natasha sold all the necklaces and bracelets. How much did she collect from the sale of all the necklaces and bracelets?

Topic 16 : Grouping method – Same number of variable 1 and 2 – Qn 2

At a class party, there were 3 times as many boys as girls. Each boy was given 3 cookies and each girl was given 2 cookies. A total of 253 cookies were given to them. How many boys were there at the class party?

Topic 16 : Grouping method – Same number of variable 1 and 2 – Qn 3

Tom and Zac each had an equal amount of money. Every day, Tom spent \$16 and Zac spent \$28. When Zac had used up all his money, Tom still had \$240 left. How much money did each of them have at first?

Topic 16 : Grouping method – Same number of variable 1 and 2 – Qn 4

Mrs Lim ordered 460 chocolate and blueberry cupcakes for a birthday party. The chocolate cupcakes were packed in boxes of 6 while the blueberry cupcakes were packed in boxes of 11. The number of boxes of chocolate cupcakes was twice that of the blueberry cupcakes. How many chocolate cupcakes did Mrs Lim buy?