Division

Word Problems

One-Step Division Word Problem: Exact Answer

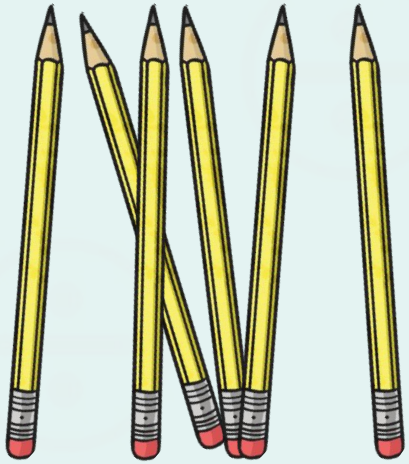
A group of 48 children is divided into groups of 6 children.
How many groups will be formed?

48 ÷ 6 = 8

There will be 8 groups.

One-Step Division Word Problem:
Remainder Not Used

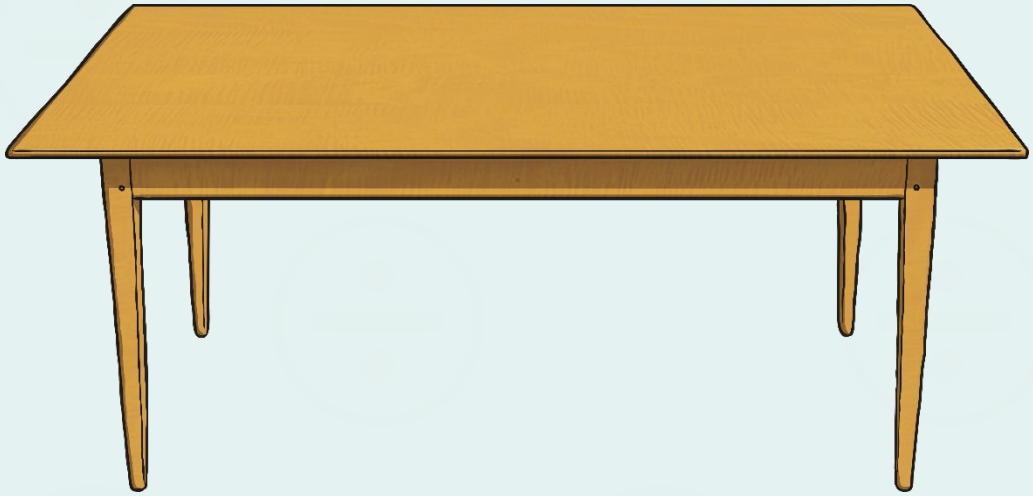
A pot holds 6 pencils.
How many full pots can be made from 51 pencils?



51 ÷ 6 = 8 r3
The remainder is not used.
8 pots will be filled with 6 pencils.

One-Step Division Word Problem: Remainder Used

A table seats groups of 6 children.
How many tables are needed for 45 children?

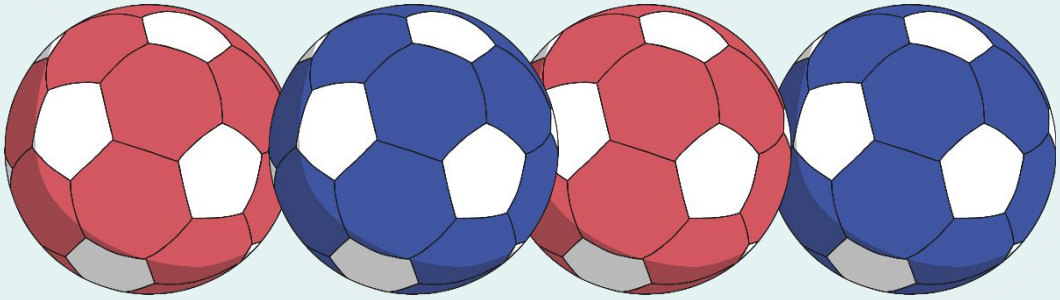


45 ÷ 6 = 7 r3

The remaining children need a table.
8 tables are needed.

Two-Step Division Word Problem:
Division First

A sports shop has 3 packs of balls, each containing four balls. It also has 52 balls which are also made into packs of four balls.
How many packs of four balls are there now?



52 ÷ 4 = 13; 13 + 3 = 16
There are 16 packs of balls.

Two-Step Division Word Problem: Division Second

There are 16 girls and 15 boys in a class. They are organised into tables of four. How many tables are needed to sit all of the children?

16 + 15 = 31; 31 ÷ 4 = 7 r3; the remainder is used.
8 tables are needed.

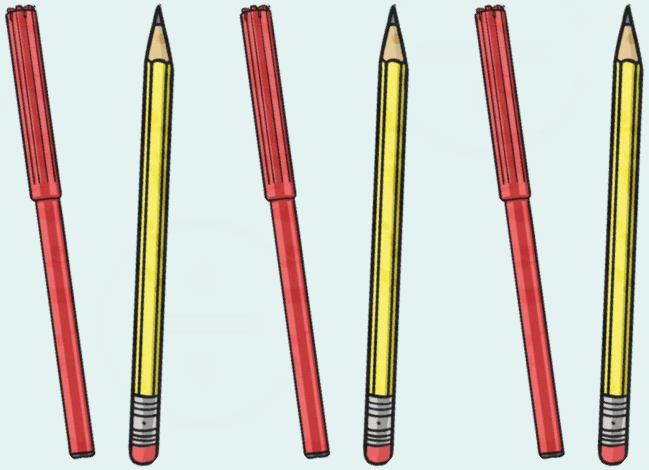
Multi-Step Division Word Problem (1)

A toy shop has 3 bags of 12 marbles, and 6 bags of 8 marbles. The marbles are combined to make new bags of 15 marbles. How many full bags will be made?

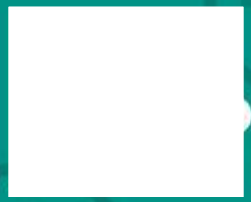
12 × 3 = 36;
8 × 6 = 48;
36 + 48 = 84;
84 ÷ 15 = 5 r9
5 bags of 15 marbles will be made.

Multi-Step Division Word Problem (2)

A teacher has 48 pencils and 27 pens. The teacher shares the pens and pencils equally into 6 pots. How many writing implements are shared into each pot?



48 ÷ 6 = 8;
27 ÷ 6 = 4 r3;
8 + 4 = 12
Each pot will have 12 writing implements.



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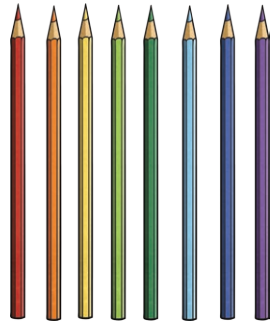
Multi-Step Division Word Problems

Challenge Cards

1. A teacher has 7 packs of 12 pencils and 2 packs of 54 pencils. The teacher shares these pencils out into 8 pencils pots. How many pencils will be in each pot?



2. A child has a collection of football cards. They are to be kept in a folder with 9 cards on each page. The child has 28 complete sets of 12 cards, and another 61 cards. How many pages will be needed to store the cards.

3. A printer can print 14 birthday cards on a sheet of card. The printer needs to print the following:
   - 28 packs of 4 cards
   - 18 packs of 10 cards

How many sheets of cards will be needed to print these cards?

4. A ten pin bowling alley buys 6 packs of new pins, with each pack containing 8 pins. All the pins in the alley are collected from the lanes and counted. Of the 267 pins, 29 are thrown away due to damage. The remaining pins and new pins are combined and shared equally among the 18 lanes, with any remaining pins kept as spares. How many pins will be allocated to each lane?

5. A local charity has 3 fundraising events. The events raise £176, £81 and £309 each. After costs of £92 are deducted, the money is shared equally among 3 local children's group. How much does each group receive?

6. At a dancing school, there are 2 classes. The younger class has 65 pupils. The older class has 41 pupils. For a dance, there will be eight equal groups of dancers. How many dancers will there be in each group?

7. Daffodils are arranged into bunches of 12 flowers. A florist buys 9 crates, each with 150 flowers, from one supplier and 4 crates, each with 115 flowers from another. How many bunches of 12 daffodils can be made?

8. A machine produces a toy car every 16 minutes. The machine is switched on at 8.30am each morning and switched off as soon as it finishes a car after 5.15pm. How many cars are produced each day?

Multi-Step Division Word Problems Challenge Cards

Answers

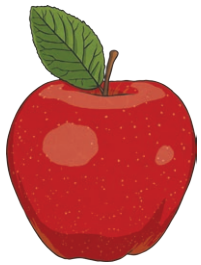
1. 24 pencils
2. 45 pages
3. 21 sheets
4. 15 pins
5. £158
6. 13 dancers
7. 150 bunches
8. 33 cars (8.30am to 5.15pm is 525 minutes. 525 ÷ 16 = 32 r13. The 33rd car will be finished at 5.18pm.)

One-Step Division With Remainders

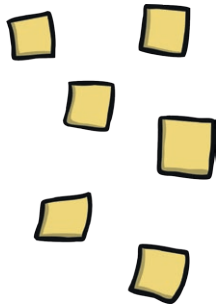
Word Problems

1. A teacher asks some children to organise a box of 37 quoits by hanging them in threes on some hooks. How many hooks are needed?

2. Forty-six pieces of apple are shared equally among 9 children. How many pieces of apple do each receive?



3. In an office, there are 8 desks. A pack of 35 sets of sticky notes need sharing equally among the desks. How many sets of sticky notes are on each desk?

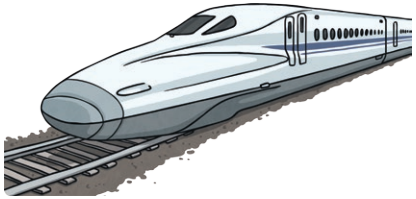


4. A group of 57 dancers are organised into groups of nine. How many full groups of nine can be created?

5. A factory makes 67 cars in one day. Each car transporter can carry 8 cars. How many transporters are needed to carry all the cars away?

6. Bananas are sold in packs of five. How many complete packs of five bananas can be made from 136 bananas?

7. A school party of 86 children are to travel on a steam train. 9 children can fit into each compartment. How many compartments will be needed?



8. A plate holds 6 pieces of cake. How many full plates can be created from 74 pieces?

Answers

1. 13 hooks
2. 5 pieces
3. 4 sets
4. 6 groups
5. 9 transporters
6. 27 packs
7. 10 compartments
8. 12 cakes

One-Step Division No Remainders

Word Problems

1. A teacher asks some children to arrange 36 chairs into rows of nine chairs. How many rows will there be?

2. A crate holds 72 bottles. How many packs of 6 bottles will be in each crate?

3. A photographer prints 96 photographs to arrange in an album. Each page will contain 8 photographs. How many pages will be used?

4. Apples are sold in packs of seven apples. How many packs can be made from 91 apples?

5. A large pack of 132 marbles is shared equally into 12 bags. How many marbles will there be in each bag?

6. There are 68 tennis balls in a tub. The tennis balls are organised into sets of four tennis balls. How many sets will there be?

7. Thank you cards are sold in packs of 5 cards. How many packs can be made from 125 cards?

8. 105 books are arranged onto some shelves. There are fifteen books on each shelf. How many shelves are used?

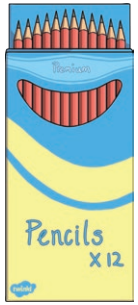
Answers

1. 4 rows
2. 12 packs
3. 12 pages
4. 13 packs
5. 11 marbles
6. 17 sets
7. 25 packs
8. 7 shelves

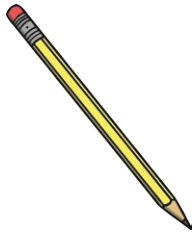
Two-Step Division
Word Problems

1. There are seventeen boys and fourteen girls in a class. The children sit at tables of 4. How many tables are needed?

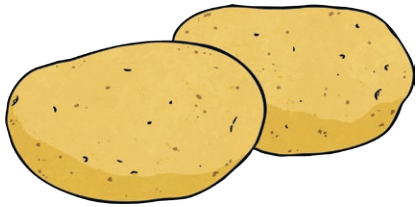
2. A pencil factory makes 463 pencils in one hour, but 32 are found to be faulty. The pencils are sold in packs of 12. How many packs will be filled by the non-faulty pencils?



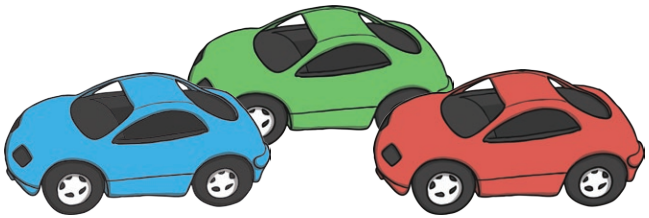
3. A teacher has 2 boxes of pencils. One has 173 pencils and the other 149 pencils. He puts the pencils together and shares them equally into 7 pots. How many pencils will there be in each pot?



4. A grocer has 189 baking potatoes. The grocer puts 75 baking potatoes out individually and bags the rest of the potatoes into packs of 6. How many packs of 6 does the grocer make?



5. A toy warehouse has 156 packs of 3 cars. The cars are to be re-boxed in packs of 5. How many packs of 5 can be made from these cars?



6. A sports trust organises a football competition. 23 teams of 11 players enter, and 176 individual players who want to be made into new teams. If all the individual players are made into new teams of 11 players, how many teams will play in the competition?

7. Marbles are sold in bags of 25. A marble machine produces 1892 marbles per hour. How many bags of 25 marbles can be filled from the marbles made by this marble machine in six hours?

8. A sports shop has 45 boxes of tennis balls, each with 3 tennis balls. It also has 129 tennis balls which are put into boxes of 3 tennis balls. How many boxes are there altogether?

Answers

1. 8 tables
2. 35 packs
3. 46 pencils
4. 19 bags
5. 93 packs
6. 39 teams
7. 454 bags of marbles
8. 88 boxes