

Multi-Step Word Problems

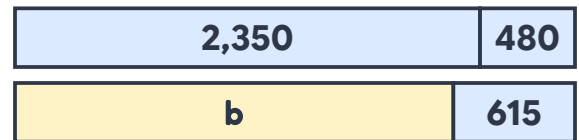
Add and subtract in two steps. Use a strip diagram.

Write an equation with a letter for the unknown. Then solve.

Example A store has 2,350 games. It gets 480 more. Then it sells 615. How many games does it have now?

Equation: $2,350 + 480 - 615 = b$

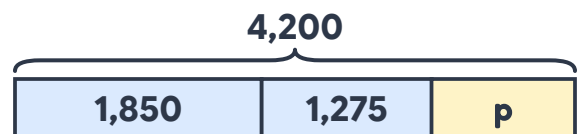
Answer: $b = 2,215$ games



1. A farm grew 4,200 pumpkins. It sold 1,850 in September and 1,275 in October. How many pumpkins are left?

Equation: _____

Answer: _____



2. Last year a library lent 186,400 books. This year it lent 98,250 more than that. How many books did it lend in the two years?

Equation: _____

Answer: _____



3. Some people were at a fair. 1,250 more came, and then 840 went home. Now 3,410 are there. How many were there at first?

Equation: _____

Answer: _____

Draw a strip diagram.

4. A stadium has 65,000 seats. 28,450 tickets were sold online and 19,875 at the gate. How many seats were not sold?

Equation: _____

Answer: _____

Draw a strip diagram.

Multi-Step Word Problems

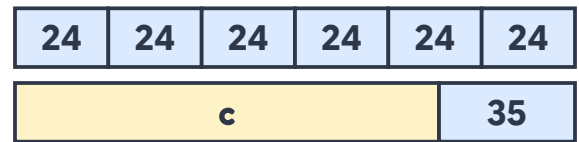
Multiply and divide in two steps. Use a strip diagram.

Write the numbers in the strip diagram. Write an equation. Solve.

Example Each box has 24 crayons. A teacher buys 6 boxes. She gives 35 crayons to the art room. How many crayons does she keep?

Equation: $6 \times 24 - 35 = c$

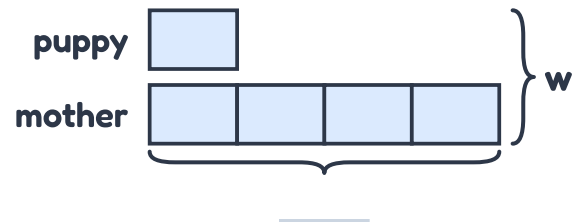
Answer: $c = 109$ crayons



1. A mother dog weighs 36 pounds. That is 4 times as much as her puppy weighs. How much do the two dogs weigh together?

Equation: _____

Answer: _____



2. There are 96 campers. 12 stay at camp. The rest go on a hike in 4 equal groups. How many campers are in each group?

Equation: _____

Answer: _____



3. A florist has 120 roses. She puts 15 roses in each of 6 vases. How many roses are not in a vase?

Equation: _____

Answer: _____

Draw a strip diagram.

4. A small fish tank holds 12 gallons. A big tank holds 5 times as much. How many more gallons does the big tank hold?

Equation: _____

Answer: _____

Draw a strip diagram.

Multi-Step Word Problems

Use a letter for the number you do not know.

Circle the equation that matches the story.

Example Ana had some stickers. She bought 3 packs of 8 stickers. Now she has 50 stickers. How many stickers did she have at first?

$s + 3 \times 8 = 50$

$3 \times s + 8 = 50$

$s = 50 + 3 \times 8$

1. A shop has 6 boxes of pens with the same number in each box, and 9 loose pens. It has 81 pens in all. How many pens are in each box?

$6 + p + 9 = 81$

$6 \times 9 + p = 81$

$6 \times p + 9 = 81$

2. Show tickets cost \$7 each. A family pays with a \$50 bill and gets \$8 back. How many tickets did they buy?

$7 \times t + 50 = 8$

$50 - 7 \times t = 8$

$50 + 8 = 7 \times t$

Write an equation with a letter for the unknown. Then solve.

Example A school orders 8 boxes of paper with 500 sheets in each box. It uses 2,750 sheets. How many sheets are left?

Equation: $8 \times 500 - 2,750 = s$

Answer: $s = 1,250$ sheets

3. Some people were on a train. At a stop, 46 got off and 28 got on. Then 175 people were on the train. How many were on it before the stop?

Equation: _____

Answer: _____

4. A garden has 7 rows of carrots with the same number in each row, and 12 more carrots in a pot. There are 103 in all. How many are in each row?

Equation: _____

Answer: _____

5. A club made \$1,250 at a bake sale and \$430 at a car wash. It splits the money equally among 4 class trips. How much does each trip get?

Equation: _____

Answer: _____

Multi-Step Word Problems

Estimate or exact? Use estimates to check answers.

Circle what the question needs. Then answer it.

Example A fair had 3,815 visitors on Saturday and 4,290 on Sunday. Did more than 6,000 people come?

Estimate Exact Yes _____

1. A bank account has \$1,250. Dad takes out \$385. How much money is left in the account?

Estimate Exact _____

2. A bus trip costs \$18 for each person. Is \$600 enough for 27 people to go?

Estimate Exact _____

3. 168 students are split into 8 equal teams for field day. How many students are on each team?

Estimate Exact _____

Which number is it closer to? Then find the exact answer.

Problem	It is between	Closer to	Exact answer
Example 6×48	240 and 300	<u>300</u>	<u>288</u>
4. $2,480 + 1,370$	3,000 and 4,000	_____	_____
5. $8,150 - 3,920$	4,000 and 5,000	_____	_____
6. $228 \div 6$	30 and 40	_____	_____

Estimate. Is the answer reasonable? Circle Yes or No.

Example A theater has 28 rows of 42 seats. 315 seats are empty. Leo says 861 seats are full.

Estimate: $30 \times 40 = 1,200$

Reasonable? Yes No

7. A town had 248,615 people. 31,290 moved in and 12,450 moved out. Mia says 367,455 live there now.

Estimate: _____

Reasonable? Yes No

8. A farm packs 1,920 apples in bags of 8. It sells each bag for \$3. Sam says it gets \$72.

Estimate: _____

Reasonable? Yes No

9. A school buys 36 boxes of 125 pencils. It gives out 2,380. Ava says 2,120 pencils are left.

Estimate: _____

Reasonable? Yes No

Multi-Step Word Problems

Solve problems with three steps or more.

Estimate first. Then solve. Show each step.

Example 345 students and 21 teachers go to a show. Each bus holds 48 people. How many buses do they need?

$$345 + 21 = 366$$

$$366 \div 48 = 7 \text{ R } 30$$

$$1 \text{ more bus for } 30: 7 + 1 = 8$$

Estimate: $400 \div 50 = 8$

Answer: 8 buses

1. A class buys 24 tickets for \$13 each and 3 pizzas for \$18 each. They pay with \$400. How much change do they get?

Estimate: _____

Answer: _____

2. A farm packs 1,350 eggs into cartons of 12. It sells each full carton for \$3. How much money does it get for the full cartons?

Estimate: _____

Answer: _____

3. A store gets 22 boxes of 144 pencils. It sells 1,250 pencils. It puts the rest in packs of 25. How many full packs can it make?

Estimate: _____

Answer: _____

4. A baker makes 28 trays of 35 cookies. She gives 60 cookies to a school. She packs the rest in tins of 24. How many tins does she need?

Estimate: _____

Answer: _____

Multi-Step Word Problems

Add and subtract in two steps. Use a strip diagram.

Write an equation with a letter for the unknown. Then solve.

Example A store has **2,350** games. It gets **480** more. Then it sells **615**. How many games does it have now?

Equation: $2,350 + 480 - 615 = b$

Answer: $b = 2,215$ games

2,350	480
b	615

1. A farm grew **4,200** pumpkins. It sold **1,850** in September and **1,275** in October. How many pumpkins are left?

Equation: _____

Answer: _____

4,200		
1,850	1,275	p

2. Last year a library lent **186,400** books. This year it lent **98,250** more than that. How many books did it lend in the two years?

Equation: _____

Answer: _____

Last	186,400	} t
This	186,400	
	98,250	

3. Some people were at a fair. **1,250** more came, and then **840** went home. Now **3,410** are there. How many were there at first?

Equation: _____

Answer: _____

Draw a strip diagram.

4. A stadium has **65,000** seats. **28,450** tickets were sold online and **19,875** at the gate. How many seats were not sold?

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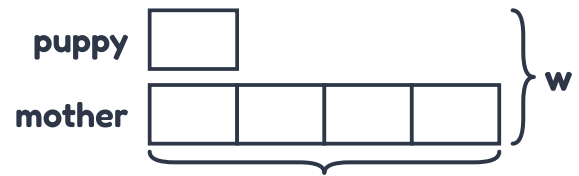
Answer: $c = 109$ crayons

24	24	24	24	24	24
c					35

1. A mother dog weighs 36 pounds. That is 4 times as much as her puppy weighs. How much do the two dogs weigh together?

Equation: _____

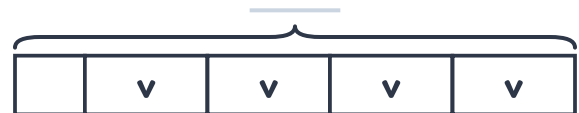
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2. There are 96 campers. 12 stay at camp. The rest go on a hike in 4 equal groups. How many campers are in each group?

Equation: _____

Answer: _____



3. A florist has 120 roses. She puts 15 roses in each of 6 vases. How many roses are not in a vase?

Equation: _____

Answer: _____

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4. A small fish tank holds 12 gallons. A big tank holds 5 times as much. How many more gallons does the big tank hold?

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$s + 3 \times 8 = 50$

$3 \times s + 8 = 50$

$s = 50 + 3 \times 8$

1. A shop has 6 boxes of pens with the same number in each box, and 9 loose pens. It has 81 pens in all. How many pens are in each box?

$6 + p + 9 = 81$

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2. Show tickets cost \$7 each. A family pays with a \$50 bill and gets \$8 back. How many tickets did they buy?

$7 \times t + 50 = 8$

$50 - 7 \times t = 8$

$50 + 8 = 7 \times t$

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Example A school orders 8 boxes of paper with 500 sheets in each box. It uses 2,750 sheets. How many sheets are left?

Equation: $8 \times 500 - 2,750 = s$

Answer: $s = 1,250$ sheets

3. Some people were on a train. At a stop, 46 got off and 28 got on. Then 175 people were on the train. How many were on it before the stop?

Equation: _____

Answer: _____

4. A garden has 7 rows of carrots with the same number in each row, and 12 more carrots in a pot. There are 103 in all. How many are in each row?

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5. A club made \$1,250 at a bake sale and \$430 at a car wash. It splits the money equally among 4 class trips. How much does each trip get?

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Estimate or exact? Use estimates to check answers.

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Example A fair had 3,815 visitors on Saturday and 4,290 on Sunday. Did more than 6,000 people come?

Estimate Exact Yes

1. A bank account has \$1,250. Dad takes out \$385. How much money is left in the account?

Estimate Exact

2. A bus trip costs \$18 for each person. Is \$600 enough for 27 people to go?

Estimate Exact

3. 168 students are split into 8 equal teams for field day. How many students are on each team?

Estimate Exact

Which number is it closer to? Then find the exact answer.

Problem	It is between	Closer to	Exact answer
Example 6×48	240 and 300	300	288
4. $2,480 + 1,370$	3,000 and 4,000		
5. $8,150 - 3,920$	4,000 and 5,000		
6. $228 \div 6$	30 and 40		

Estimate. Is the answer reasonable? Circle Yes or No.

Example A theater has 28 rows of 42 seats. 315 seats are empty. Leo says 861 seats are full.

Estimate: $30 \times 40 = 1,200$

Reasonable? **Yes** No

7. A town had 248,615 people. 31,290 moved in and 12,450 moved out. Mia says 367,455 live there now.

Estimate: _____

Reasonable? Yes No

8. A farm packs 1,920 apples in bags of 8. It sells each bag for \$3. Sam says it gets \$72.

Estimate: _____

Reasonable? Yes No

9. A school buys 36 boxes of 125 pencils. It gives out 2,380. Ava says 2,120 pencils are left.

Estimate: _____

Reasonable? Yes No

Multi-Step Word Problems

Solve problems with three steps or more.

Estimate first. Then solve. Show each step.

Example 345 students and 21 teachers go to a show. Each bus holds 48 people. How many buses do they need?

$$345 + 21 = 366$$

$$366 \div 48 = 7 \text{ R } 30$$

$$1 \text{ more bus for } 30: 7 + 1 = 8$$

Estimate: $400 \div 50 = 8$

Answer: 8 buses

1. A class buys 24 tickets for \$13 each and 3 pizzas for \$18 each. They pay with \$400. How much change do they get?

Estimate: _____

Answer: _____

2. A farm packs 1,350 eggs into cartons of 12. It sells each full carton for \$3. How much money does it get for the full cartons?

Estimate: _____

Answer: _____

3. A store gets 22 boxes of 144 pencils. It sells 1,250 pencils. It puts the rest in packs of 25. How many full packs can it make?

Estimate: _____

Answer: _____

4. A baker makes 28 trays of 35 cookies. She gives 60 cookies to a school. She packs the rest in tins of 24. How many tins does she need?

Estimate: _____

Answer: _____

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Example A store has 2,350 games. It gets 480 more. Then it sells 615. How many games does it have now?

Equation: $2,350 + 480 - 615 = b$

Answer: $b = 2,215$ games

2,350	480
b	615

1. A farm grew 4,200 pumpkins. It sold 1,850 in September and 1,275 in October. How many pumpkins are left?

Equation: $1,850 + 1,275 + p = 4,200$

Answer: $p = 1,075$ pumpkins

4,200		
1,850	1,275	p

2. Last year a library lent 186,400 books. This year it lent 98,250 more than that. How many books did it lend in the two years?

Equation: $186,400 + 186,400 + 98,250 = t$

Answer: $t = 471,050$ books

Last	186,400	} t
This	186,400	
	98,250	

3. Some people were at a fair. 1,250 more came, and then 840 went home. Now 3,410 are there. How many were there at first?

Equation: $s + 1,250 - 840 = 3,410$

Answer: $s = 3,000$ people

Draw a strip diagram.

s	1,250
3,410	840

4. A stadium has 65,000 seats. 28,450 tickets were sold online and 19,875 at the gate. How many seats were not sold?

Equation: $65,000 - 28,450 - 19,875 = e$

Answer: $e = 16,675$ seats

Draw a strip diagram.

65,000		
28,450	19,875	e

Multi-Step Word Problems

Multiply and divide in two steps. Use a strip diagram.

Write the numbers in the strip diagram. Write an equation. Solve.

Example Each box has 24 crayons. A teacher buys 6 boxes. She gives 35 crayons to the art room. How many crayons does she keep?

Equation: $6 \times 24 - 35 = c$

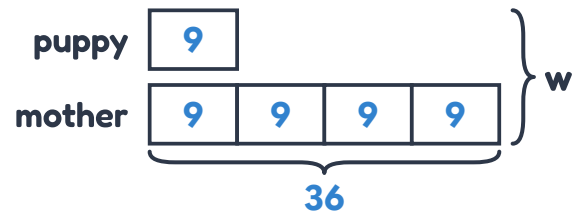
Answer: $c = 109$ crayons

24	24	24	24	24	24
c					35

1. A mother dog weighs 36 pounds. That is 4 times as much as her puppy weighs. How much do the two dogs weigh together?

Equation: $36 + 36 \div 4 = w$

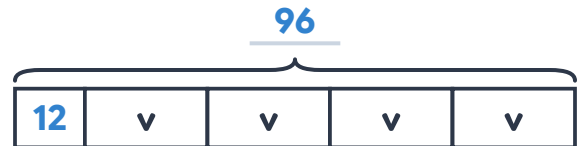
Answer: $w = 45$ pounds



2. There are 96 campers. 12 stay at camp. The rest go on a hike in 4 equal groups. How many campers are in each group?

Equation: $12 + 4 \times v = 96$

Answer: $v = 21$ campers

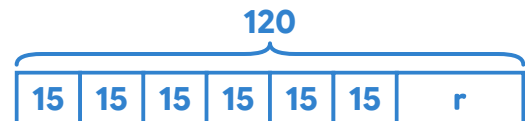


3. A florist has 120 roses. She puts 15 roses in each of 6 vases. How many roses are not in a vase?

Equation: $120 - 6 \times 15 = r$

Answer: $r = 30$ roses

Draw a strip diagram.

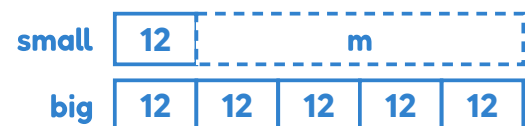


4. A small fish tank holds 12 gallons. A big tank holds 5 times as much. How many more gallons does the big tank hold?

Equation: $5 \times 12 - 12 = m$

Answer: $m = 48$ gallons

Draw a strip diagram.



Multi-Step Word Problems

Use a letter for the number you do not know.

Circle the equation that matches the story.

Example Ana had some stickers. She bought 3 packs of 8 stickers. Now she has 50 stickers. How many stickers did she have at first?

$s + 3 \times 8 = 50$

$3 \times s + 8 = 50$

$s = 50 + 3 \times 8$

1. A shop has 6 boxes of pens with the same number in each box, and 9 loose pens. It has 81 pens in all. How many pens are in each box?

$6 + p + 9 = 81$

$6 \times 9 + p = 81$

$6 \times p + 9 = 81$

2. Show tickets cost \$7 each. A family pays with a \$50 bill and gets \$8 back. How many tickets did they buy?

$7 \times t + 50 = 8$

$50 - 7 \times t = 8$

$50 + 8 = 7 \times t$

Write an equation with a letter for the unknown. Then solve.

Example A school orders 8 boxes of paper with 500 sheets in each box. It uses 2,750 sheets. How many sheets are left?

Equation: $8 \times 500 - 2,750 = s$

Answer: $s = 1,250$ sheets

3. Some people were on a train. At a stop, 46 got off and 28 got on. Then 175 people were on the train. How many were on it before the stop?

Equation: $p - 46 + 28 = 175$

Answer: $p = 193$ people

4. A garden has 7 rows of carrots with the same number in each row, and 12 more carrots in a pot. There are 103 in all. How many are in each row?

Equation: $103 = 7 \times c + 12$

Answer: $c = 13$ carrots

5. A club made \$1,250 at a bake sale and \$430 at a car wash. It splits the money equally among 4 class trips. How much does each trip get?

Equation: $(1,250 + 430) \div 4 = m$

Answer: $m = \$420$

Multi-Step Word Problems

Estimate or exact? Use estimates to check answers.

Circle what the question needs. Then answer it.

Example A fair had 3,815 visitors on Saturday and 4,290 on Sunday. Did more than 6,000 people come?

Estimate Exact Yes

1. A bank account has \$1,250. Dad takes out \$385. How much money is left in the account?

Estimate Exact \$865

2. A bus trip costs \$18 for each person. Is \$600 enough for 27 people to go?

Estimate Exact Yes

3. 168 students are split into 8 equal teams for field day. How many students are on each team?

Estimate Exact 21 students

Which number is it closer to? Then find the exact answer.

Problem	It is between	Closer to	Exact answer
Example 6×48	240 and 300	300	288
4. $2,480 + 1,370$	3,000 and 4,000	4,000	3,850
5. $8,150 - 3,920$	4,000 and 5,000	4,000	4,230
6. $228 \div 6$	30 and 40	40	38

Estimate. Is the answer reasonable? Circle Yes or No.

Example A theater has 28 rows of 42 seats. 315 seats are empty. Leo says 861 seats are full.

Estimate: $30 \times 40 - 300 = 900$

Reasonable? Yes No

7. A town had 248,615 people. 31,290 moved in and 12,450 moved out. Mia says 367,455 live there now.

Estimate: e.g. 270,000

Reasonable? Yes No

8. A farm packs 1,920 apples in bags of 8. It sells each bag for \$3. Sam says it gets \$72.

Estimate: e.g. \$750

Reasonable? Yes No

9. A school buys 36 boxes of 125 pencils. It gives out 2,380. Ava says 2,120 pencils are left.

Estimate: e.g. 2,000

Reasonable? Yes No

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Solve problems with three steps or more.

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Example 345 students and 21 teachers go to a show. Each bus holds 48 people. How many buses do they need?

Estimate: $400 \div 50 = 8$

$$345 + 21 = 366$$

$$366 \div 48 = 7 \text{ R } 30$$

$$1 \text{ more bus for } 30: 7 + 1 = 8$$

Answer: 8 buses

1. A class buys 24 tickets for \$13 each and 3 pizzas for \$18 each. They pay with \$400. How much change do they get?

Estimate: e.g. \$40

$$24 \times 13 = 312$$

$$3 \times 18 = 54$$

$$312 + 54 = 366$$

$$400 - 366 = 34$$

Answer: \$34

2. A farm packs 1,350 eggs into cartons of 12. It sells each full carton for \$3. How much money does it get for the full cartons?

Estimate: e.g. \$300

$$1,350 \div 12 = 112 \text{ R } 6$$

112 cartons are full

$$112 \times 3 = 336$$

Answer: \$336

3. A store gets 22 boxes of 144 pencils. It sells 1,250 pencils. It puts the rest in packs of 25. How many full packs can it make?

Estimate: e.g. 80

$$22 \times 144 = 3,168$$

$$3,168 - 1,250 = 1,918$$

$$1,918 \div 25 = 76 \text{ R } 18$$

Answer: 76 packs

4. A baker makes 28 trays of 35 cookies. She gives 60 cookies to a school. She packs the rest in tins of 24. How many tins does she need?

Estimate: e.g. 40

$$28 \times 35 = 980$$

$$980 - 60 = 920$$

$$920 \div 24 = 38 \text{ R } 8$$

$$1 \text{ more tin for } 8: 38 + 1 = 39$$

Answer: 39 tins