

Express Missing Number Problems Algebraically

For each question, choose the expression that matches one of the problems algebraically, and then solve the problem.

Example:

Twelve more than a number is 34. What is the number?

$$n-12=34$$

$$12+n=34$$

$$34-12=n$$

$$n= 22$$

1. Ten less than a number is 26. What is the number?

$$n-10=26$$

$$10-n=26$$

$$n=26-10$$

$$n=$$

2. 16 is added to a number to make 35. What is the number?

$$35+16=n$$

$$n+16=35$$

$$35=16-n$$

$$n=$$

3. Fifteen is subtracted from a number to make 26. What is the number?

$$26-n=15$$

$$15-n=26$$

$$n-15=26$$

$$n=$$

4. Seventeen more than a number is 43. What is the number?

$$17+n=43$$

$$17+43=n$$

$$n-17=43$$

$$n=$$

5. A number has thirteen added to it to make 42. What is the number?

$$13+n=42$$

$$42=n-13$$

$$n=13+42$$

$$n=$$

6. What number has 24 added to it to make 51?

$$n-24=51$$

$$24+n=51$$

$$n+24=51$$

$$n=$$

7. What number has nineteen subtracted from it to make twenty-five?

$$n-19=25$$

$$25-n=19$$

$$n-25=19$$

$$n=$$

8. 56 is the total of a number and twenty-seven. What is the number?

$$n+56=27$$

$$27+56=n$$

$$27+n=56$$

$$n=$$

Express Missing Number Problems Algebraically

For each question, express the problems algebraically and then solve the problem.

1. Classroom tray units are built at different heights. The height of the tray unit without legs is written as h . The trays have legs of 6cm added.

What formula is used to express the height of a set of trays with legs? _____

Complete the table below using the formula.

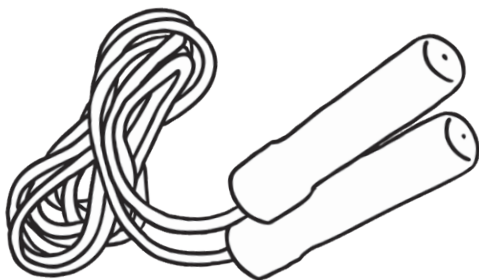
Height of tray unit without legs	Height of tray unit with legs
26cm	
34cm	
	58cm
65cm	
	95cm

2. Skipping ropes are made from lengths of rope. The length of the rope used is r . 14 cm of rope is used at the ends for the handles so the skipping rope is 14cm less than the length of rope used.

What formula is used to express how long is the skipping rope? _____

Complete the table below using the formula.

Length of rope used	Length of finished skipping rope
80cm	
92cm	
	86cm
105cm	
	92cm



Express Missing Number Problems Algebraically

For each question, express the problems algebraically and then solve the problem.

1. A jar weighs 58g. It is filled with different weights of jam. The weight of jam is j .
What formula is used to express the weight of a jar of jam? _____

Complete the table below using the formula.

Weight of jam used	Weight of jar with jam
120g	
145g	
	238g
215g	
	306g

2. When lemonade is poured into a bottle, 15 ml is spilled. The amount of lemonade poured is d .
What formula is used to express the amount of lemonade in a bottle? _____

Complete the table below using the formula.

Lemonade poured	Lemonade in a bottle
240ml	
345ml	
	450ml
515ml	
	750ml



Express Missing Number Problems Algebraically Answers

1. Ten less than a number is 26. What is the number?

$$n-10=26$$

$$10-n=26$$

$$n=26-10$$

$$n= \underline{36}$$

2. 16 is added to a number to make 35. What is the number?

$$35+16=n$$

$$n+16=35$$

$$35=16-n$$

$$n= \underline{19}$$

3. Fifteen is subtracted from a number to make 26. What is the number?

$$26-n=15$$

$$15-n=26$$

$$n-15=26$$

$$n= \underline{41}$$

4. Seventeen more than a number is 43. What is the number?

$$17+n=43$$

$$17+43=n$$

$$n-17=43$$

$$n= \underline{26}$$

5. A number has thirteen added to it to make 42. What is the number?

$$13+n=42$$

$$42=n-13$$

$$n=13+42$$

$$n= \underline{29}$$

6. What number has 24 added to it to make 51?

$$n-24=51$$

$$24+n=51$$

$$n+24=51$$

$$n= \underline{27}$$

7. What number has nineteen subtracted from it to make twenty-five?

$$n-19=25$$

$$25-n=19$$

$$n-25=19$$

$$n= \underline{44}$$

8. 56 is the total of a number and twenty-seven. What is the number?

$$n+56=27$$

$$27+56=n$$

$$27+n=56$$

$$n= \underline{29}$$

Express Missing Number Problems Algebraically Answers

1. Classroom tray units are built at different heights. The height of the tray unit without legs is written as h . The trays have legs of 6cm added.

What formula is used to express the height of a set of trays with legs? height = $h + 6$

Complete the table below using the formula.

Height of tray unit without legs	Height of tray unit with legs
26cm	32cm
34cm	40cm
52cm	58cm
65cm	71cm
89cm	95cm

2. Skipping ropes are made from lengths of rope. The length of the rope used is r . 14 cm of rope is used at the ends for the handles so the skipping rope is 14cm less than the length of rope used.

What formula is used to express how long is the skipping rope? skipping rope = $r - 14$

Complete the table below using the formula.

Length of rope used	Length of finished skipping rope
80cm	66cm
92cm	78cm
100cm	86cm
105cm	91cm
106cm	92cm

Express Missing Number Problems Algebraically Answers

1. A jar weighs 58g. It is filled with different weights of jam. The weight of jam is j .
What formula is used to express the weight of a jar of jam? **weight of jar of jam = $j + 58$**
Complete the table below using the formula.

Weight of jam used	Weight of jar with jam
120g	178g
145g	203g
180g	238g
215g	273g
248g	306g

2. When lemonade is poured into a bottle, 15 ml is spilled. The amount of lemonade poured is d .
What formula is used to express the amount of lemonade in a bottle? **lemonade = $d - 15$**
Complete the table below using the formula.

Lemonade poured	Lemonade in a bottle
240ml	225ml
345ml	330ml
465ml	450ml
515ml	500ml
765ml	750ml