Estimation

Guess Check and Adjust

An expression is part of a number story.

15 x 7 = 85 is a number story.

85 is a mathematical expression

$$15 \underline{x\ 7} = 85$$

15 x 7 is a mathematical expression

The **sum** of 8 and 7 is 15

8 + 7 = 15

To find the sum we add.

The **product** of 5 and 7 is 35

5 x 7 = 35

To find the quotient we multiply.

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15 and 5 has a **difference of** 10

15 − 5 = 10

To find the difference we take.

We can also count on to find the difference.

5 + ___ = 15

5 + 10 = 15 so the difference of 15 and 5 is 10

The **quotient** of 15 and 5 is 3

15 ÷ 5 = 3

To find the quotient we divide.

What is the product of 3 and 6

What is the quotient of 12 and 3

What is the sum of 15 and 20

18 and 7 has a difference of

What is the product of 20 and 5

What is the quotient of 24 and 2

What is the sum of 17 and 21

18 and 21 has a difference of

Which expression has a value between 800 and 900?

To solve, we may need to round and estimate.

a/ 58 x 11   b/ 518 x 2   c/ 1400 ÷ 70   d/ 4805 ÷ 6

58 x 10 = 580	520 x 2	14 ÷ 7 = 2	4800 ÷ 6
or	500 x 2 = 1000	140 ÷ 7 = 20	6 x 8 = 48
60 x 11 = 660	20 x 2 = 40	140 ÷ 70 = 2	6 x 80 = 480
	520 x 2 = 1040	1400 ÷ 70 = 20	6 x 800 = 4800
			4800 ÷ 6 = 800
✖	✖	✖	🙂

Estimate to determine which expression has a value between 500 and 600

Show your thinking in the boxes below.   Mark the correct answer with a X

a/ 12 x 59   b/ 820 x 2   c/ 2520 ÷ 5   d/ 1600 ÷ 40

Mark the correct answer with an x

Estimate to determine which expression has a value closest to 600

Show your thinking in the boxes below.   Mark the correct answer with a X

a/ 12 x 29   b/ 2505 ÷ 4   c/   250 x 3   d/ 2400 ÷ 60

Solve by Estimating

Solve Using Guess Check and Adjust

James has 149 Pokemon cards. He has them in bags. There are between 28 and 32 cards in each bag.

How many bags of Pokemon cards does he have?

| | 3 | 4 | 5 |

150 ÷ 3 = 50

160 ÷ 4 = 40

150 ÷ 5 = 30

James has 149 Pokemon cards. He has them in bags. There are between 28 and 32 cards in each bag.

How many bags of Pokemon cards does he have?

| | 3 | 4 | 5 |

		4 x 30 = 120	5 x 30 = 150
	3 x 50 = 1		5 x 29 = 145
		4 x 35 = 140	
	3 x 49 = 147	4 x 36 = 144	29 and 30 are between 28 and 32 so he must have 5 bags
	147 ÷ 3 = 49	4 x 37 = 148	

There are 97 chairs in the hall. They are arranged them in rows. There are between 18 and 24 chairs in each row.

How many rows of chairs must there be

3   4   5

Show your thinking.

James has 142 Pokemon cards. He has them in bags. There are between 35 and 40 cards in each bag.

How many bags of Pokemon cards does he have?

3   4   5

Show your thinking.

There are 167 children in a school. There are between 30 and 35 children in each class.

How many classes are there ?

5   6   7

Show your thinking.