THIRD SPACE LEARNING

Word Problems

11 addition and subtraction questions to develop reasoning and problem solving skills

Grade 5

Questions

Name: ....   Date: ....

1   Kristy had some chicken. She gave $3\frac{2}{3}$ pounds to Jamal and $2\frac{3}{4}$ pounds to Carissa. Kristy had $1\frac{2}{3}$ pounds of chicken left. How many pounds of chicken did Kristy start with?

Answer

2   Complete the next term in each pattern, then describe the relationship between the corresponding terms of each pattern.

Pattern A	6	11	16	21	

Pattern B	8	14	20	26	

3 A grocery store sells the following fruits:
- Apples: $0.35 per kg
- Pears: $0.50 per kg
- Oranges: $0.62 per kg
- Lemons: $0.95 per kg

In one day they sell 2kg of apples, 3kg of pears, 1 kg of oranges and 3kg of lemons.

How much money did the grocery store make?

Answer

4 Janan solves the following equation:

$$1\frac{4}{5} \;+\; 4\frac{1}{2} \;=\; 5\frac{4}{5}$$

Without solving (using benchmark fractions or estimation), explain whether or not Janan's answer is reasonable.

Answer

5 Abdul, a farmer, has 3.2 acres of land. He uses 0.55 acres for his sheep and 1.7 acres for his cows. The rest is for his horses. How many acres does Abdul use for his horses?

Answer

6 Lucas has $14\frac{7}{12}$ ft of string. He uses $5\frac{1}{4}$ ft to fix his soccer goal net, then he uses $2\frac{2}{3}$ ft to complete a school project. How much string does Lucas have left?

Answer

7 Carla has completed some decimal number calculations.

She doesn't know if they are accurate or not. Can you help her check them?

If they are incorrect, work out the correct answer.

The first example has been done for you.

Calculation	Is it correct?	Correct answer
6.19 + 0.4 = 6.23	No	6.19 + 0.4 = 6.59
18.16 – 0.9 = 17.26		
25.34 + 15.2 = 30.54		
123.5 – 121.05 = 2		
12.8 – 2.08 = 10.72		

8 Complete the next term in each pattern, then describe the relationship between the corresponding terms of each pattern.

Pattern A

3	6	9	12	

Pattern B

30	27	24	21	

9 Julia is testing two paper airplanes she designed. Airplane 1 travels 4.56 meters. Airplane 2 travels 2.875 meters. How much farther did Airplane 1 travel?

Answer

10 Imani walked $\frac{3}{5}$ of a mile. Bridgette walked $\frac{5}{8}$ of a mile. Who walked farther and by how much?

Answer

Challenge Question!

Create two patterns, where one pattern's terms are always 11 more than the other. Explain how you worked out your solution.

Answer

Answers

Question number	Question	Answers	Standard
1	How many pounds of chicken did Kristy start with?	3 ⅔ + 2 ¾ + 1 ⅔ = 8 ¹⁄₁₂ pounds of chicken *Solved using visual fraction models or equations	5.NF.A.1 5.NF.A.2
2	Complete the next term in each pattern, then describe the relationship between the corresponding terms of each pattern. Pattern A: 6, 11, 16, 21, … Pattern B: 8, 14, 20, 26, …	Pattern A: 26 Pattern B: 32 The first term in Pattern B starts off 2 more and grows by one each time. This is because the rule for Pattern B adds 1 more each time than the rule for Pattern A. *Responses will vary	5.OA.B.3
3	How much money did the grocery store make?	$5.67 *Solved with strategies based on place value, properties of operations and/or models	5.NBT.B.7
4	Without solving (using benchmark fractions or estimation), explain whether or not Janan's answer is reasonable.	Janan's answer is not reasonable because, ⅘ is only ⅕ away from 1 whole, so adding ½ (which is larger than ⅕) will create a new whole, making it 6 wholes, not 5. *Responses may vary, but should show fraction number sense	5.NF.A.1

Question number	Question	Answers	Standard
5	How many acres does Abdul use for his horses?	3.2 - 0.55 - 1.7 = 0.95 acres *Solved with strategies based on place value, properties of operations and/or models	5.NBT.B.7
6	How much string does Lucas have left?	14 $\frac{7}{12}$ - 5 $\frac{1}{4}$ - 2 $\frac{2}{3}$ = 6 $\frac{8}{12}$ or 6 $\frac{2}{3}$ *Solved using visual fraction models or equations	5.NF.A.1 5.NF.A.2
7	Carla has completed some decimal number calculations. She doesn't know if they are accurate or not. Can you help her check them? If they are incorrect, work out the correct answer.	Correct: 18.16 - 0.9 = 17.26 Incorrect: 25.34 + 15.2 = 40.54 Incorrect: 123.5 - 121.05 = 2.45 Correct: 12.8 - 2.08 = 10.72	5.NBT.B.7
8	Complete the next term in each pattern. Then describe the relationship between the corresponding terms of each pattern. Pattern A: 3, 6, 9, 12, ... Pattern B: 30, 27, 24, 21, ...	Pattern A: 15 Pattern B: 18 The first terms are 27 apart and after that they get 6 closer each time (because one pattern is adding 3 and one is subtracting). *Responses will vary	5.OA.B.3
9	How much farther did Airplane 1 travel?	4.56 - 2.875 = 1.685 meters	5.NBT.B.7
10	Who walked farther and by how much?	Bridgette walked farther by $\frac{1}{40}$ of a mile.	5.NF.A.1 5.NF.A.2
Challenge Question	Create two patterns, where one pattern's terms are always 11 more than the other. Explain how you worked out your solution.	Any patterns that start off 11 apart and have the same rule.	5.OA.B.3

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