

Canonbury Home Learning

Year 6 Maths

Developing/ Expected/ Greater depth activity

Lesson 2

LO: TBAT solve word problems.

Task: This week you will be trying to find the ages of family members solving word problems.

Success Criteria:

1. Read the question.
2. Highlight the key information.
3. Identify the operation needed (+, -, ÷, x)
4. Solve.
5. Use the inverse to check your answer.

100 Square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Prime Numbers

A prime number is a whole number that has only two factors: itself and 1.

For example, 7 is a prime number because it has only two factors: 7 and 1.

$7 \div 7 = 1$ and $7 \div 1 = 7$

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

13 is a prime number. It has two factors: 13 and 1.
 $13 \div 1 = 13$ $13 \div 13 = 1$

is the lowest and only even prime number. It has two factors: 2 and 1.
 $2 \div 1 = 2$ $2 \div 2 = 1$

1 is not a prime number. It has only one factor: 1.
 $1 \div 1 = 1$

6 is not a prime number. It has four factors: 1, 2, 3 and 6.
 $6 \div 1 = 6$ $6 \div 2 = 3$
 $6 \div 3 = 2$ $6 \div 6 = 1$

Task 1	Task 2	Task 3
<p>Problem solving Apply your knowledge of factors to solve the following questions.</p> <p>Q1. Circle all the prime factors of 30 2 3 5 6 10</p> <p>Q2. 1 and 48 is factor pair of 48 Find three other factor pairs of 48</p> <p><input type="text"/> and <input type="text"/></p> <p><input type="text"/> and <input type="text"/></p> <p><input type="text"/> and <input type="text"/></p> <p>Q3. 1 and 35 is a factor pair of 35 What is the other factor pair of 35?</p> <p><input type="text"/> and <input type="text"/></p> <p>Q4.</p> <p>$23 \times 36 = 23 \times 9 \times$ <input style="width: 50px; height: 30px;" type="text"/></p>	<p>Arithmetic</p> <p>15 $\frac{2}{5}$ of 30 =</p> <hr/> <p>16 $\frac{1}{6} = \frac{?}{30}$</p> <hr/> <p>17 70% of 80 =</p> <hr/> <p>18 $7 \overline{)3456} =$</p> <hr/> <p>19 $0.07 \times 4 =$</p> <hr/> <p>20 $2.97 \times 4 =$</p> <hr/> <p>21 $9.78 \times 1000 =$</p>	<p>Project Expected Continue with yesterday's task.</p> <p>8. Sam and Susan's eldest son James (who is married) is $\frac{2}{5}$ of the age of Susan.</p> <p>9. James' sister Jessica is younger than James by less than 10 years. Her age is a multiple of both 2 and 3.</p> <p>10. James' younger brother Steven has an age which is a square number. When he is 3 times his age now, he will be 48.</p> <p>11. Sam and Bert's father Gerald is in his seventies. His age is a prime number. In less than 5 years he will be 80.</p> <p>12. Gerald's wife is younger than him although also in her seventies. Her age is a prime number. The digits of her age add up to 10.</p> <p>13. James is married to Charlotte. Charlotte is in her twenties. Her age is divisible by 2, 3, 4, 6 and 8.</p> <p>14. James and Charlotte have a son Cameron whose age is an even square number.</p> <p>15. Gerald and Ruth have an unmarried son Paul who is younger than Sam but older than Bert. His age is a prime number.</p> <p>Greater depth task on the next page.</p>

		<p>Greater Depth Continue with yesterday's task.</p> <ol style="list-style-type: none"> 8. Cyril and Ruth have a daughter called Avis. She has a monthly clothes budget of £200. Her age is a square number. The second digit is twice the first digit. 9. Brian is a son of Cyril and Ruth. His age is 4 less than half of Cyril's age. He started his latest job as a traffic warden when he was 22. 10. Brian's wife, Samantha is older than Brian. She left university when she was 24. Her age is a multiple of 7. The difference between the digits of her age is 2. Her age is an even number. 11. Brian's oldest son, Cameron has 25 stick insects. His age is a factor of 48 and 60. He is at secondary school. 12. Cameron's sister, India has 72 songs on her mobile phone. Her age is a prime number. If her age is multiplied by one of its 2 digits, the answer is 39. 13. India's sister, Jane scored 76% on her latest Maths test. She is $\frac{1}{4}$ of her father's age. 14. Brian and Samantha's youngest child, Simon goes to Beagles Primary School. His age is a factor of his mother's age. It is not a prime number. 15. Avis recently married Marvin. Marvin is due to retire when he is 60. When he is twice his current age, he will be 80.
--	--	---

Age Old Problems 2

Find the ages of the Jones family members and fill in the family tree.
Nobody is aged over 100, so a 100 square is a useful help.

1. Sam was married when he was 22 years old. He lives at 115 Chestnut Crescent. His age is a multiple of both 5 and 7 but not a multiple of 2.
2. Sam's wife, Felicia came 204th in the London Marathon. She is older than Sam and her age is a prime number. The digits of her age total 5.
3. Jim is their oldest child. He ate 24 baked beans at breakfast. His age is a square number – it is only one digit.
4. Jim's sister Sarah has 4 rabbits. Her age is a factor of 54, 72 and 84. When Sarah is 3 x as old as she is now, the digits of her age will add up to 9.
5. Sam and Felicia's youngest child Henry has chicken pox. He has 15 spots on his face. His is half the age of Sarah and $\frac{1}{3}$ of the age of Jim.
6. Sam's father Cyril is in his 70s. His age is a multiple of 24. He retired from his last job when he was 65.
7. Cyril's wife Ruth is younger than Cyril. She retired from her job when she was 59. The difference between the 2 digits of her age is 6. Her age is an odd number.