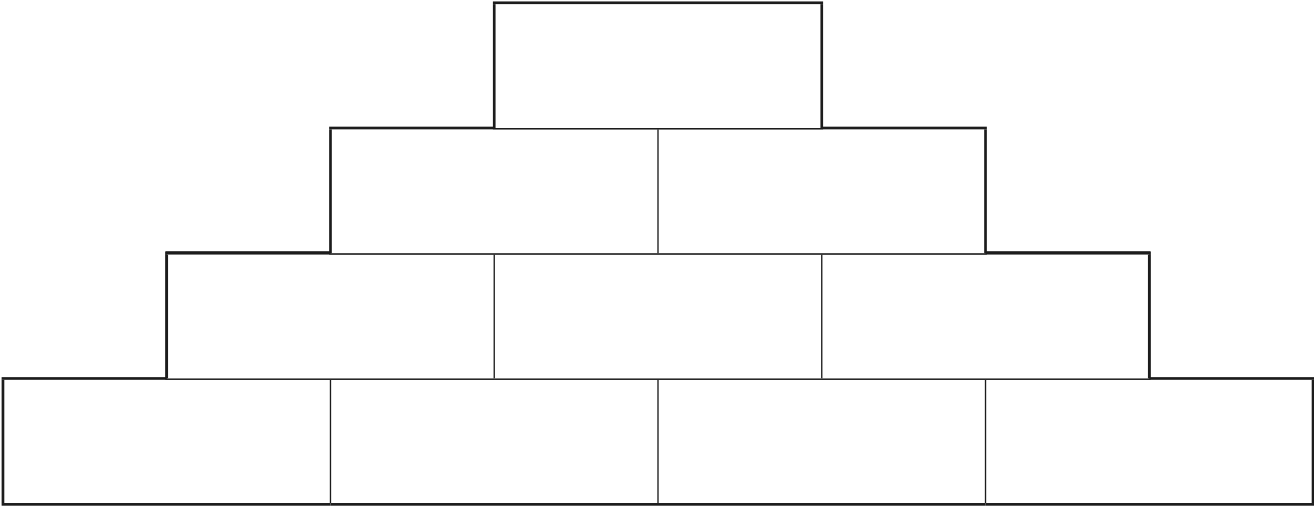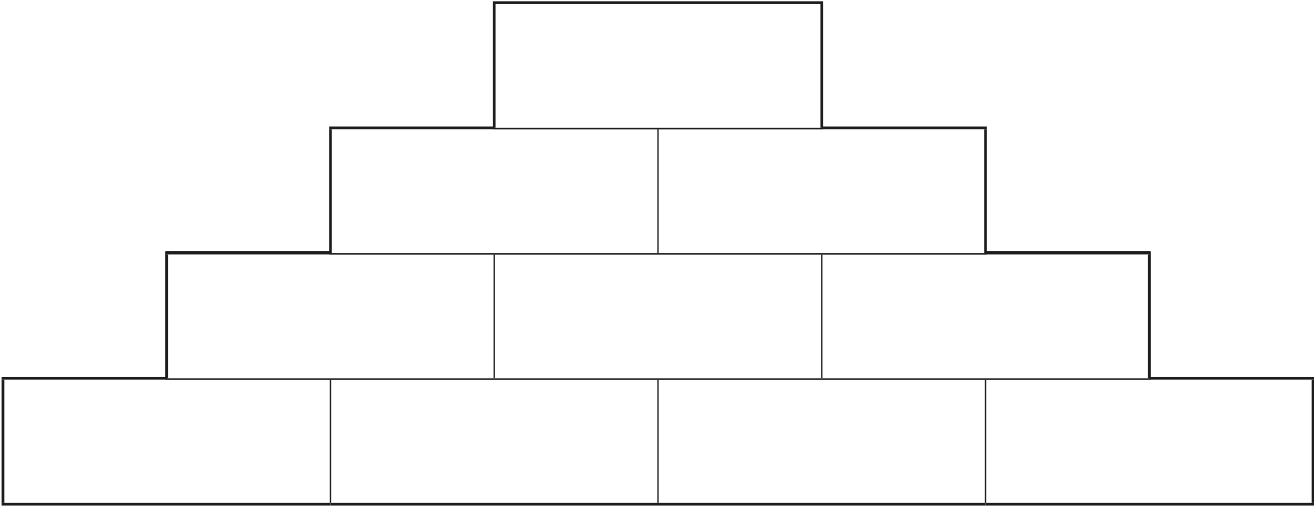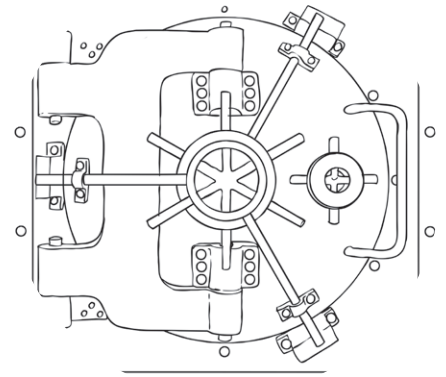# Blank Pyramid

Blank Pyramid

Missing Number Vault

I can find missing numbers using the inverse.

Secret Agent 1Q, you need to work out the code to access the vault and gather the secret document before anyone else does!

To gain a digit of the code, you must answer the four missing number sentences and then use the missing numbers to answer the corresponding question. Once all the corresponding questions have been answered, you will have the three-digit code to unlock the vault.

Vault Code: ◯ ◯ ◯

1949 + _____ + 3952 = 15 226

_____ ÷ 23 = 875

75 × _____ = 4050

68 431 - _____ = 40 786

Vault Question:

Add the missing numbers.
What is the digit inn the ten thousands place?

_____

_____ × 25 = 6875

7704 ÷ _____ = 1284

_____ - 36 664 = 28 977

2900 ÷ _____ = 145

Vault Question:

Which missing number is a multiple of three?

_____

---

970 254 + _____ = 1 504 812

_____ - 684 325 = 272 230

120 675 ÷ _____ = 4827

1548 × _____ = 13 932

Vault Question:

Which missing number is less than 24?

_____

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Missing Number Vault **Answers**

Question	Answer
	To gain a digit of the code, you must answer the four missing number sentences and then use the missing numbers to answer the corresponding question. Once all the corresponding questions have been answered, you will have the three-digit code to unlock the vault.

Vault Code: **569**

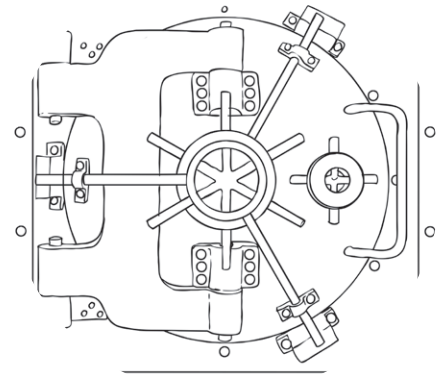| Question	Answer
1949 + **9325** + 3952 = 15 226 **20 125** ÷ 23 = 875 75 × **54** = 4050 68 431 - **27 645** = 40 786	Vault Question Add the missing numbers. What is the digit in the ten thousands place? **5** (57 149)
275 × 25 = 6875 7704 ÷ **6** = 1284 **65 641** - 36 664 = 28 977 2900 ÷ **20** = 145	Vault Question Which missing number is a multiple of three? **6**
970 254 + **534 558** = 1 504 812 **956 555** - 684 325 = 272 230 120 675 ÷ **25** = 4827 1548 × **9** = 13 932	Vault Question Which missing number is less than 24? **9**

Missing Number Vault

I can find missing numbers using the inverse.

Secret Agent 1Q, you need to work out the code to access the vault and gather the secret document before anyone else does!

To gain a digit of the code, you must answer the four missing number sentences and then use the missing numbers to answer the corresponding question. Once all the corresponding questions have been answered, you will have the four-digit code to unlock the vault.

Vault Code: ◯ ◯ ◯ ◯

_____ + 4567.4 + 568.97 = 7700.91

_____ ÷ 28 = 75.8

6552 × _____ = 42 588

61 493.97 - _____ = 13 559.48

Vault Question:
Add the missing numbers. What is the digit in the hundredths place?

_____

_____ × 10.5 = 131.25

1120.5 ÷ _____ = 124.5

_____ - 95 674.35 = 50 891.15

2900 ÷ _____ = 145

Vault Question:
Which missing number's digits add to make 14?

_____

564.405 + _____ = 598.872

_____ - 97 345.154 = 97 031.446

394.85 ÷ _____ = 78.97

149.98 × _____ = 2249.7

Vault Question:
Which missing number has one odd digit?

_____

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Missing Number Vault **Answers**

Question	Answer
	To gain a digit of the code, you must answer the four missing number sentences and then use the missing numbers to answer the corresponding question. Once all the corresponding questions have been answered, you will have the four-digit code to unlock the vault.
	Vault Code: **3595**
	2564.54 + 4567.4 + 568.97 = 7700.91 **2122.4** ÷ 28 = 75.8 6552 × **6.5** = 42 588 61 493.97 - **47 934.49** = 13 559.48	Vault Question Add the missing numbers. What is the digit in the hundredths place? **3** (52 627.93)
	12.5 × 10.5 = 131.25 1120.5 ÷ **9** = 124.5 **146 565.5** - 95 674.35 = 50 891.15 478 × **5.9** = 2820.2	Vault Question Which missing number's digits add to make 14? **5.9**
	564.405 + **34.467** = 598.872 **194 376.6** - 97 345.154 = 97 031.446 394.85 ÷ **5** = 78.97 149.98 × **15** = 2249.7	Vault Question Which missing number has one odd digit? **5**

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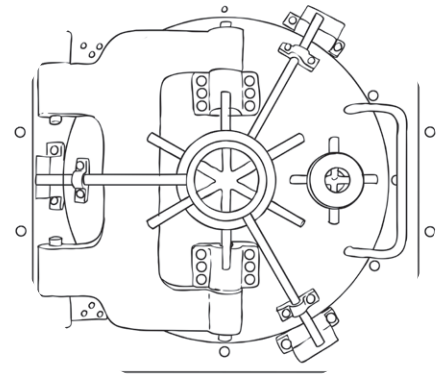Focused education on life's walk!
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Missing Number Vault

I can find missing numbers using the inverse.

Secret Agent 1Q, you need to work out the code to access the vault and gather the secret document before anyone else does!

To gain a digit of the code, you must answer the four missing number sentences and then use the missing numbers to answer the corresponding question. Once all the corresponding questions have been answered, you will have the three-digit code to unlock the vault.

Vault Code: ◯ ◯ ◯

$72\_\_.7 + \_\_25.\_\_4 + 6\_\_5.8\_\_ = 2300.11$

$13\ 543 \div 2\_\_ = 467$

$\_\_46.54 \times 8.5 = 4645.59$

$176\_\_.54 - 7\_\_4.9\_\_5 = 1013.565$

Vault Question:
Add the missing digits. What is the digit in the tens place?

_____

$47.\_\_ \times 1\_\_.5 = 926.25$

$11\ 844 \div 1\_\_ = 658$

$\_\_47.\_\_ - 9\_\_.468 = 55.332$

$\_\_\ \_\_4 \times 4.8 = 2227.2$

Vault Question:
Add the missing digits. What digit is in the ones place?

_____

$5\_\_4.\_\_4 + \_\_57.\_\_43 = 942.38\_\_$

$5\_\_.\_\_64 - \_\_8.48 = 26.084$

$1721.09 \div \_\_ = 245.87$

$278.87 \times 1\_\_ = 4183.05$

Vault Question:
Add the missing digits. What is the digit in the tens place?

_____

Missing Number Vault **Answers**

Question	Answer
	To gain a digit of the code, you must answer the four missing number sentences and then use the missing numbers to answer the corresponding question. Once all the corresponding questions have been answered, you will have the three-digit code to unlock the vault.

Vault Code: 635

72**8**.7 + **9**25.**5**4 + 6**4**5.8**7** = 2300.11 13 543 ÷ 2**9** = 467 **5**46.54 × 8.5 = 4645.59 176**8**.54 - 7**5**4.9**7**5 = 1013.565	Vault Question Add the missing digits. What is the digit in the tens place? **6** (67)
47.**5** × 1**9**.5 = 926.25 11 844 ÷ 1**8** = 658 **1**47.**8** - 9**2**.468 = 55.332 **4**6**4** × 4.8 = 2227.2	Vault Question Add the missing digits. What digit is in the ones place? **3** (43)
5**8**4.**5**4 + **3**57.**8**43 = 942.38**3** 5**4**.**5**64 - **2**8.48 = 26.084 1721.09 ÷ **7** = 245.87 278.87 × 1**5** = 4183.05	Vault Question Add the missing digits. What is the digit in the tens place? **5** (50)

1)

$130 \div \mathbf{10} = 13$ $6.5 \times 10 = \mathbf{65}$

$130 \div \mathbf{20} = 6.5$ $\mathbf{130} = 6.5 \times 20$

$130 \div \mathbf{5} = 26$ $\mathbf{13} = 6.5 \times 2$

2)

$110 \div 2 = 55$ $27.5 \times 4 = \mathbf{110}$

$110 \div 4 = \mathbf{27.5}$ $110 = \mathbf{27.5} \times 4$

$110 \div 8 = \mathbf{13.75}$ $55 = \mathbf{13.75} \times 4$

3) *Show that we know the answer to 17 × 289 = 4913, so we only need to complete the calculation 4913 + 289 to find that 18 × 289 = 5202.*

1)

	True or False?	Correct Answer	Mistakes Made
$660 \div 1.2 = 550$	*True*		
$5.5 \times 12 = 6.6$	*False*	*66*	*55 × 12 = 660* *In 5.5 × 12 = 6.6, the 5.5 is ten times smaller so the answer will be ten times smaller (66).*
$5.5 \times 1.2 = 0.66$	*False*	*6.6*	*55 × 12 = 660* *In 5.5 × 1.2 = 6.6, both numbers are ten times smaller so the answer will be one hundred times smaller (6.6).*
$66 \div 12 = 5.5$	*True*		
$120 \times 55 = 660$	*False*	*6600*	*55 × 12 = 660* *In 120 × 55 = 660, the 120 is ten time greater than the 12 so the answer will be ten times greater (6600).*

2)

a) *30 × 5 = 150 star jumps.*

b) *50 is ten times greater than 5, so the answer will be ten times greater than 150. He will have done 1500 star jumps.*

c) *4500 is three times 1500. I know that 1500 star jumps takes 50 days, so 4500 star jumps will take 150 days (3 × 150).*

1)

		61	67	37	13.25	99	15.5
		57	36	9.9	88	14.25	88
60	59	58	14	15.75	26	55	5
22	20	21	13.5	14.75	27	54	4
9	8	6.75	29.5	28.5	28	53	118
7	6	6.5	30	83	2.5	1.5	2
57	12.25	7.5	11.5	117	33		
8.4	69	2.25	20.25	99	77		

270 ÷ 10 = **27**

270 ÷ 20 = **13.5**

270 ÷ 5 = **54**

118 ÷ 2 = **59**

118 ÷ **4** = 29.5

118 ÷ **8** = 14.75

6.75 × 40 = 270

130 = 6.5 × **20**

13 = 6.5 × **2**

29.5 × 4 = 118

118 = 29.5 × 4

59 = **14.75** × 4

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1) Use known facts to complete these calculations.

130 ÷ _____ = 13   6.5 × 10 = _____

130 ÷ _____ = 6.5   _____ = 6.5 × 20

130 ÷ _____ = 26   _____ = 6.5 × 2

2) Make a set of similar calculations using 110 ÷ 2 = 55.

110 ÷ 2 = 55   27.5 × 4 = _____

110 ÷ 4 = _____   110 = _____ × 4

110 ÷ 8 = _____   55 = _____ × 4

3) Use 4913 ÷ 17 = 289 to calculate 18 × 289. Explain your working out.

_____

_____

1) Use this calculation to decide if the following calculations are true or false.
For any false calculations, give the correct answer and explain the mistake that has been made.

55 × 12 = 660	True or False?	Correct Answer	Mistakes Made
660 ÷ 1.2 = 550			
5.5 × 12 = 6.6			
5.5 × 1.2 = 0.66			
66 ÷ 12 = 5.5			
120 × 55 = 660			

2) Rami keeps fit by doing 30 star jumps every day.

a) How many star jumps will he have done after 5 days? Explain your working out.

b) How many star jumps will he have done after 50 days? Give your answer and explain how you used the previous calculation to help you.

c) Rami has completed 4500 star jumps. How many days is this? Give your answer and explain how you used the previous calculation to help you.

1) Use known facts to complete these calculations. Shade each answer on the maze to find the path from the money to the bank vault.

		61	67	37	13.25	99	15.5
		57	36	9.9	88	14.25	88
60	59	58	14	15.75	26	55	5
22	20	21	13.5	14.75	27	54	4
9	8	6.75	29.5	28.5	28	53	118
7	6	6.5	30	83	2.5	1.5	2
57	12.25	7.5	11.5	117	33		
8.4	69	2.25	20.25	99	77		

270 ÷ 10 = _____

270 ÷ 20 = _____

270 ÷ 5 = _____

118 ÷ 2 = _____

118 ÷ _____ = 29.5

118 ÷ _____ = 14.75

_____ × 40 = 270

130 = 6.5 × _____

13 = 6.5 × _____

_____ × 4 = 118

_____ = 29.5 × 4

59 = _____ × 4

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1) Use known facts to complete these calculations.

$130 ÷ \underline{\hspace{2em}} = 13$ $6.5 × 10 = \underline{\hspace{2em}}$

$130 ÷ \underline{\hspace{2em}} = 6.5$ $\underline{\hspace{2em}} = 6.5 × 20$

$130 ÷ \underline{\hspace{2em}} = 26$ $\underline{\hspace{2em}} = 6.5 × 2$

2) Make a set of similar calculations using $110 ÷ 2 = 55$.

$110 ÷ 2 = 55$ $27.5 × 4 = \underline{\hspace{2em}}$

$110 ÷ 4 = \underline{\hspace{2em}}$ $110 = \underline{\hspace{2em}} × 4$

$110 ÷ 8 = \underline{\hspace{2em}}$ $55 = \underline{\hspace{2em}} × 4$

3) Use $4913 ÷ 17 = 289$ to calculate $18 × 289$. Explain your working out.

1) Use this calculation to decide if the following calculations are true or false. For any false calculations, give the correct answer and explain the mistake that has been made.

55 × 12 = 660	True or False?	Correct Answer	Mistakes Made
660 ÷ 1.2 = 550			
5.5 × 12 = 6.6			
5.5 × 1.2 = 0.66			
66 ÷ 12 = 5.5			
120 × 55 = 660			

2) Rami keeps fit by doing 30 star jumps every day.

a) How many star jumps will he have done after 5 days? Explain your working out.

b) How many star jumps will he have done after 50 days? Give your answer and explain how you used the previous calculation to help you.

c) Rami has completed 4500 star jumps. How many days is this? Give your answer and explain how you used the previous calculation to help you.

1) Use known facts to complete these calculations. Shade each answer on the maze to find the path from the money to the bank vault.

		61	67	37	13.25	99	15.5
		57	36	9.9	88	14.25	88
60	59	58	14	15.75	26	55	5
22	20	21	13.5	14.75	27	54	4
9	8	6.75	29.5	28.5	28	53	118
7	6	6.5	30	83	2.5	1.5	2
57	12.25	7.5	11.5	117	33		
8.4	69	2.25	20.25	99	77		

270 ÷ 10 = _____   _____ × 40 = 270

270 ÷ 20 = _____   130 = 6.5 × _____

270 ÷ 5 = _____   13 = 6.5 × _____

118 ÷ 2 = _____   _____ × 4 = 118

118 ÷ _____ = 29.5   _____ = 29.5 × 4

118 ÷ _____ = 14.75   59 = _____ × 4

Extra Challenge

I can find missing numbers using the inverse.

Calculate the missing number in these calculations.

1)
```
   [ ] 8 [ ] 3 1 [ ]
 +   1 [ ] 0 [ ] [ ] 9
 ─────────────────────
   4 8 8 3 3 4
```

2)
```
   8 [ ] 8 [ ] 8 [ ]
 + [ ] 6 [ ] 1 [ ] 9
 ─────────────────────
   1 6 1 0 0 4 1
```

3)
```
   [ ] 0 [ ] 2 [ ] 8
 + 7 [ ] 1 [ ] 7 [ ]
 ─────────────────────
   1 2 5 1 4 7 4
```

4)
```
   5 [ ] [ ] [ ] 3 2
 + [ ] 5 8 9 [ ] [ ]
 ─────────────────────
   1 4 3 7 0 4 2
```

5)
```
   [ ] 9 4 4 [ ] [ ]
 + 2 [ ] [ ] [ ] 4 0
 ─────────────────────
   5 6 6 1 5 1
```

6)
```
   4 [ ] 6 [ ] 9 [ ]
 + [ ] 6 [ ] 0 [ ] 1
 ─────────────────────
   1 3 2 5 1 9 2
```

7)
```
   [ ] 5 [ ] 8 6 [ ]
 - 4 [ ] 5 [ ] [ ] 7
 ─────────────────────
   4 3 2 1 8 8
```

8)
```
   7 [ ] 5 [ ] 7 [ ]
 - [ ] 0 [ ] 2 [ ] 6
 ─────────────────────
   5 6 1 4 0 0
```

9)
```
   [ ] 4 [ ] 4 [ ] 8
 - 1 [ ] 4 [ ] 9 [ ]
 ─────────────────────
   7 0 4 5 8 5
```

10)
```
   8 [ ] [ ] [ ] 7 6
 - [ ] 0 5 2 [ ] [ ]
 ─────────────────────
   3 1 7 2 7 0
```

11)

```
    ☐  4  1  8  ☐  ☐
 -  5  ☐  ☐  ☐  9  2
 ─────────────────────
    8  9  5  6     8
```

12)

```
    4  ☐  1  ☐  6  ☐
 -  ☐  0  ☐  1  ☐  9
 ─────────────────────
    1  9  2  6  7  2
```

13)

```
       1  ☐  1
 ×        ☐  ☐
 ───────────────
       7  7  7
    3  3  3  0
 ───────────────

 ───────────────
```

14)

```
    ☐  8  ☐
 ×     2  ☐
 ─────────────
    4  4  0  0
 1  7  6  0  0
 ─────────────

 ─────────────
```

15)

```
    ☐  ☐  2
 ×     ☐  7
 ─────────────
    1  8  3  4
 1  3  1  0  0
 ─────────────

 ─────────────
```

16)

```
    ☐  7  ☐
 ×     6  ☐
 ─────────────
    9  7  0
 5  8  2  0  0
 ─────────────

 ─────────────
```

17)

```
    5  ☐  ☐
 ×     ☐  9
 ─────────────
    4  8  6  9
 3  7  8  7  0
 ─────────────

 ─────────────
```

18)

```
    3  1  ☐
 ×     ☐  ☐
 ─────────────
    2  8  1  7
 6  2  6  0
 ─────────────

 ─────────────
```

Extra Challenge **Answers**

Question	Answer
Calculate the missing number in these calculations.	
1	388 315 + 100 019 = 488 334
2	848 882 + 761 159 = 1 610 041
3	500 298 + 751 176 = 1 251 474
4	578 132 + 858 910 = 1 437 042
5	294 411 + 271 740 = 566 151
6	456 191 + 869 001 = 1 325 192
7	857 865 – 425 677 = 432 188
8	765 676 – 204 276 = 561 400
9	849 478 – 144 893 = 704 585
10	822 476 – 505 206 = 317 270
11	641 860 – 552 292 = 89 568
12	401 861 – 209 189 = 192 672

Question	Answer
13	111 × 37 = 4107
14	880 × 25 = 22 000
15	262 × 57 = 14 934
16	970 × 61 = 59 170
17	541 × 79 = 42 739
18	313 × 29 = 9077