


Name _____

Date _____


Number Patterns (A)

① Apply the rule to complete the number patterns.


a) $\star \times 2 = \square$

	1	2	3	4	5	6	7	8
<input type="text"/>								

b) $\star + 5 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>								

c) $\star \times 10 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>								

② Continue these fraction and decimal number patterns.

a)

$\frac{1}{12}$	$\frac{2}{12}$					$\frac{7}{12}$	
----------------	----------------	--	--	--	--	----------------	--

b)

$\frac{1}{20}$	$\frac{3}{20}$					$\frac{13}{20}$	
----------------	----------------	--	--	--	--	-----------------	--

c)

0.2	0.4			1			1.6
-----	-----	--	--	---	--	--	-----

d)

2.02			2.08			2.14	
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Name _____

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Number Patterns (B)

① Apply the rule to complete the number patterns.


a) $\star \times 4 = \square$

	1	2	3	4	5	6	7	8
<input type="text"/>								

b) $\star + 8 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>								

c) $\star \times 11 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>								

② Continue these fraction and decimal number patterns.

a)

$\frac{3}{5}$	$1\frac{1}{5}$			3			
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b)

$\frac{1}{6}$	$\frac{5}{6}$					$4\frac{1}{6}$	
---------------	---------------	--	--	--	--	----------------	--

c)

1.5	3						
-----	---	--	--	--	--	--	--


d)

3.205	3.225						
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Number Patterns (A) - Answers

1) Apply the rule to complete the number patterns.


a) $\star \times 2 = \square$

	1	2	3	4	5	6	7	8
<input type="text"/>	2	4	6	8	10	12	14	16

b) $\star + 5 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>	6	8	10	12	14	16	18	20

c) $\star \times 10 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>	10	30	50	70	90	110	130	150

2) Continue these fraction and decimal number patterns.

a)

$\frac{1}{12}$	$\frac{2}{12}$	$\frac{3}{12}$	$\frac{4}{12}$	$\frac{5}{12}$	$\frac{6}{12}$	$\frac{7}{12}$	$\frac{8}{12}$
----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------

b)

$\frac{1}{20}$	$\frac{3}{20}$	$\frac{5}{20}$	$\frac{7}{20}$	$\frac{9}{20}$	$\frac{11}{20}$	$\frac{13}{20}$	$\frac{15}{20}$
----------------	----------------	----------------	----------------	----------------	-----------------	-----------------	-----------------

c)

0.2	0.4	0.6	0.8	1	1.2	1.4	1.6
-----	-----	------------	------------	---	------------	------------	-----


d)

2.02	2.04	2.06	2.08	2.1	2.12	2.14	2.16
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Number Patterns (B) - Answers

1) Apply the rule to complete the number patterns.


a) $\star \times 4 = \square$

	1	2	3	4	5	6	7	8
<input type="text"/>	4	8	12	16	20	24	28	32

b) $\star + 8 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>	9	11	13	15	17	19	21	23

c) $\star \times 11 = \square$

	1	3	5	7	9	11	13	15
<input type="text"/>	11	33	55	77	99	121	143	165

2) Continue these fraction and decimal number patterns.

a)

$\frac{3}{5}$	$1\frac{1}{5}$	$1\frac{4}{5}$	$2\frac{2}{5}$	3	$3\frac{3}{5}$	$4\frac{1}{5}$	$4\frac{4}{5}$
---------------	----------------	----------------	----------------	---	----------------	----------------	----------------

b)

$\frac{1}{6}$	$\frac{5}{6}$	$1\frac{3}{6}$	$2\frac{1}{6}$	$2\frac{5}{6}$	$3\frac{3}{6}$	$4\frac{1}{6}$	$4\frac{5}{6}$
---------------	---------------	----------------	----------------	----------------	----------------	----------------	----------------

c)

1.5	3	4.5	6	7.5	9	10.5	12
-----	---	-----	---	-----	---	------	----

d)

3.205	3.225	3.245	3.265	3.285	3.305	3.325	3.345
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Unknown Quantities in Number Sentences (A)

① Complete the number sentence by filling in the missing value.

a) $14 + \underline{\quad} = 20$

b) $\underline{\quad} - 5 = 10$

c) $3 \times \underline{\quad} = 18$

d) $19 + \underline{\quad} = 26$

e) $100 - \underline{\quad} = 55$

f) $\underline{\quad} + 18 = 30$

g) $15 \div \underline{\quad} = 3$

h) $7 \times \underline{\quad} = 35$

i) $\underline{\quad} + 8 - 2 = 16$

② Complete the number sentence by filling in the missing value.

a) $16 + 4 = 5 \times \underline{\quad}$

b) $25 - \underline{\quad} = 3 \times 5$

c) $\underline{\quad} - 6 = 32 + 8$

d) $100 \div 5 = \underline{\quad} - 20$

e) $20 \times 2 = 80 \div \underline{\quad}$

f) $15 - \underline{\quad} = 3 \times 3$

g) $18 \div \underline{\quad} = 16 - 10$

h) $200 - 50 = 75 \times \underline{\quad}$

i) $250 - 50 = \underline{\quad} \times 4$

③ Use = or \neq to complete the number sentences.

a) $4 \times 3 \underline{\quad} 6 + 6$

b) $10 \div 2 \underline{\quad} 10 - 5$

c) $35 - 12 \underline{\quad} 11 \times 2$

d) $17 + 17 \underline{\quad} 68 \div 2$

e) $200 - 50 \underline{\quad} 70 + 70$

f) $56 + 6 \underline{\quad} 62 \times 1$

g) $100 \div 10 \underline{\quad} 90 - 80$

h) $210 - 100 \underline{\quad} 11 \times 10$

i) $12 \times 4 \underline{\quad} 7 \times 6$

④ Write an equation and solve each of these word problems.

a) Selena joined a gym and was paying \$11 per month. How much did she pay over 12 months?

b) Brian had \$3000, but he bought 5 computers that cost \$200 each. How much money does he have left?



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Unknown Quantities in Number Sentences (B)

① Complete the number sentence by filling in the missing value.

- a) $22 + \underline{\quad} = 55$
- b) $\underline{\quad} \times 5 = 150$
- c) $20 \times \underline{\quad} = 80$
- d) $122 + \underline{\quad} = 126$
- e) $189 - \underline{\quad} = 120$
- f) $\underline{\quad} + 56 = 135$
- g) $49 \div \underline{\quad} = 7$
- h) $12 \times \underline{\quad} = 144$
- i) $\underline{\quad} + 11 \times 3 = 66$

② Complete the number sentence by filling in the missing value.

- a) $82 + 18 = 5 \times \underline{\quad}$
- b) $125 - \underline{\quad} = 4 \times 5$
- c) $\underline{\quad} - 16 = 32 + 8$
- d) $120 \div 4 = \underline{\quad} - 15$
- e) $30 \times 2 = 120 \div \underline{\quad}$
- f) $45 - \underline{\quad} = 5 \times 3$
- g) $180 \div \underline{\quad} = 9 \times 10$
- h) $220 - 50 = 170 \times \underline{\quad}$
- i) $300 - 50 - 30 = \underline{\quad} \times 2$

③ Write an equation and solve each of these word problems.

- a) Some friends decide to split the bill for dinner evenly. How many friends were at the dinner if the total of the bill was \$210 and each person paid \$42?

- b) Troy bought some video games. He paid \$175 in total for them and they were \$25 each. How many video games did he buy?

- c) Steven had enough dog biscuits to last his 2 dogs 4 weeks. If they have 100 grams each for dinner each night, how much food did Steven start with?



Unknown Quantities in Number Sentences (A) - Answers

① Complete the number sentence by filling in the missing value.

a) $14 + \underline{6} = 20$

b) $\underline{15} - 5 = 10$

c) $3 \times \underline{6} = 18$

d) $19 + \underline{7} = 26$

e) $100 - \underline{45} = 55$

f) $\underline{12} + 18 = 30$

g) $15 \div \underline{5} = 3$

h) $7 \times \underline{5} = 35$

i) $\underline{10} + 8 - 2 = 16$

② Complete the number sentence by filling in the missing value.

a) $16 + 4 = 5 \times \underline{4}$

b) $25 - \underline{10} = 3 \times 5$

c) $\underline{46} - 6 = 32 + 8$

d) $100 \div 5 = \underline{40} - 20$

e) $20 \times 2 = 80 \div \underline{2}$

f) $15 - \underline{6} = 3 \times 3$

g) $18 \div \underline{3} = 16 - 10$

h) $200 - 50 = 75 \times \underline{2}$

i) $250 - 50 = \underline{50} \times 4$

③ Use = or \neq to complete the number sentences.

a) $4 \times 3 \underline{=} 6 + 6$

b) $10 \div 2 \underline{=} 10 - 5$

c) $35 - 12 \underline{\neq} 11 \times 2$

d) $17 + 17 \underline{=} 68 \div 2$

e) $200 - 50 \underline{\neq} 70 + 70$

f) $56 + 6 \underline{=} 62 \times 1$

g) $100 \div 10 \underline{=} 90 - 80$

h) $210 - 100 \underline{=} 11 \times 10$

i) $12 \times 4 \underline{\neq} 7 \times 6$

④ Write an equation and solve each of these word problems.

a) Selena joined a gym and was paying \$11 per month. How much did she pay over 12 months?

$$11 \times 12 = 132$$

b) Brian had \$3000, but he bought 5 computers that cost \$200 each. How much money does he have left?

$$\$200 \times 5 = \$1000$$

$$\$3000 - \$1000 = \$2000$$



Unknown Quantities in Number Sentences (B) - Answers

① Complete the number sentence by filling in the missing value.

a) $22 + \underline{33} = 55$

b) $\underline{30} \times 5 = 150$

c) $20 \times \underline{4} = 80$

d) $122 + \underline{4} = 126$

e) $189 - \underline{69} = 120$

f) $\underline{79} + 56 = 135$

g) $49 \div \underline{7} = 7$

h) $12 \times \underline{12} = 144$

i) $\underline{33} + 11 \times 3 = 66$

② Complete the number sentence by filling in the missing value.

a) $82 + 18 = 5 \times \underline{20}$

b) $125 - \underline{105} = 4 \times 5$

c) $\underline{56} - 16 = 32 + 8$

d) $120 \div 4 = \underline{45} - 15$

e) $30 \times 2 = 120 \div \underline{2}$

f) $45 - \underline{30} = 5 \times 3$

g) $180 \div \underline{2} = 9 \times 10$

h) $220 - 50 = 170 \times \underline{1}$

i) $300 - 50 - 30 = \underline{110} \times 2$

③ Write an equation and solve each of these word problems.

a) Some friends decide to split the bill for dinner evenly. How many friends were at the dinner if the total of the bill was \$210 and each person paid \$42?

$$210 \div 42 = 5$$

5 people were at the dinner.

b) Troy bought some video games. He paid \$175 in total for them and they were \$25 each. How many video games did he buy?

$$175 \div 25 = 7$$

Troy bought 7 video games.

c) Steven had enough dog biscuits to last his 2 dogs 4 weeks. If they have 100 grams each for dinner each night, how much food did Steven start with?

$$100 \text{ g} \times 28 = 2800 \text{ g}$$

2800 g x 2 = 5600 g Steven started with 5600 g of dog food.

