






# 2012 Eye Level MATH Olympiad [Grade4]

No.	Answer	No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	22,204	11	7R6	21	47	31	1,539	41	
2	929,640	12	6R25	22	5	32	12	42	28
3	9R3(=9.5)	13	8R49	23	7	33	131	43	
4	27R2	14	7R29	24	$3\frac{3}{8}$	34	36	44	8, 26, 16
5	16R1(=16.25)	15	29	25	$5\frac{1}{7}$	35	295	45	
6	13R3	16	53R3(=53.075)	26	$\frac{1}{11}$	36	120	46	6
7	167	17	315R6	27	20.51	37	40	47	
8	111R4	18	847R13	28	25.54	38	6	48	22
9	104R2 (=104.25)	19	304R269	29	$\frac{1}{2}$	39	3, 3	49	24
10	884R8	20	1	30	$\frac{4}{5}$	40	$\frac{13}{18}$	50	

**【Sol】**

31.  $27 \times 57 = 1539$

32.  $67 \div 6 = 11R1$

33.  $(520 \div 4) + 1 = 130 + 1 = 131$

34.  $764 \div 21 = 36R8$

35.  $9425 \div 32 = 294R17$

36.  $2 \times 3 \times 10 + 3 \times 2 \times 10 = 60 + 60 = 120$

37.  $20 + 20 = 40$


38.  $48 \div 8 = 6$

39.  $18 = 2 \times 3 \times 3$







40.  $\frac{5}{9} + \frac{1}{6} = \frac{10}{18} + \frac{3}{18} = \frac{13}{18}$




41. 

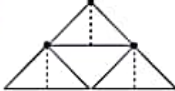
1	2
2	4
3	6
4	2
5	4
6	6


 $\Rightarrow$  

42. 

Figure Number					...	
Number of 	1	$1+2=3$	$1+2+3=6$	$1+2+3+4=10$	...	$1+2+3+4+5+6+7=28$

44.   $\times 2 \rightarrow$    $\rightarrow -4 \rightarrow$  

46.  : 3

 : 3

□  $3+3=6$

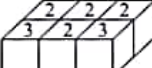
48. 100, 101, ..., 109 (11)

110, 120, ..., 190 (9)

200 (2)

$\rightarrow 11+9+2=22$

49.  :  $5+5=10$

 :  $2+2+2+3+2+3=14$

□  $10+14=24$

## 2013 Eye Level MATH Olympiad [Grade4]

No.	Answer	No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	18,291	11	8R11	21	11	31	720	41	Rick
2	142,450	12	6R4	22	10	32	16	42	Ⓐ
3	31R1	13	31R15	23	27	33	85	43	3
4	17R4 (17.8)	14	4R42	24	6	34	16	44	60
5	11R5	15	8R3	25	$1\frac{1}{7}$	35	9	45	6
6	13R4	16	76R36 (76.8)	26	$\frac{8}{11}$	36	675	46	= 9 = 5
7	65	17	284R3	27	6,193	37	Zack	47	
8	162	18	75R32	28	5,519	38	100	48	$A+C=B \times 2$ Answers may vary
9	112	19	714R28	29	$\frac{2}{5}$	39	12	49	11
10	847R2 (847.4)	20	40	30	$\frac{5}{6}$	40	Jason, Justin, Eric, Nina	50	

### 【Sol】

31.  $12 \times 60 = 720$

32.  $32 \div 2 = 16$

33.  $340 \div 4 = 85$

34.  $800 \div 50 = 16$

35.  $435 \div 46 = 9R21 \rightarrow 9$

36.  $(25 \times 5 + 50 \times 2) \times 3 = 675$

37. Megan : 1hour 45minutes 50seconds  
 $= 105\text{minutes } 50\text{seconds} = 6,350\text{seconds}$

Zack : 160minutes = 9,600seconds

38.  $400 \div 4 = 100$

39. 
$$\begin{array}{r} 3 \overline{) 48 \ 36 \ 24} \Rightarrow 3 \times 2 \times 2 = 12 \\ \underline{2 \ 16 \ 12 \ 8} \\ 2 \ 8 \ 6 \ 4 \\ \underline{4 \ 3 \ 2} \end{array}$$

41.

	Juice	Milk	Cola
Devon	×	○	×
Susan	○	×	×
Rick	×	×	○

∴ Rick is drinking cola.

43. Since  $1 \times 8 = 2 \times 4$ , the number in shaded blank is 3.

44. Complete the table

Number of cuts	1	2	3	4	5
Number of pieces	2	3	4	5	6
Time (min)	12	24	36	48	60

45. One sheep has the the same weight as 3 rabbits. One rabbit has the same weight as 2 squirrels. So, one sheep has the same weight as 6 squirrels.

46. Use a table to find the answer.

	5	6	7	8	9
	1	2	3	4	5
×	5	12	21	32	45

Therefore, = 9 , = 5

48.  $B-A=C-B$ ,  $A+C=B \times 2$ ,  $B-A=2$ ,  $C-B=2$ ,  $\frac{A+C}{2} = B$

49.

(1)  $\text{green pentagon} + \text{green pentagon} + \text{blue circle} + \text{blue circle} = 18 \rightarrow \text{green pentagon} + \text{blue circle} = 9$

(2)  $\text{green pentagon} + \text{green pentagon} + (\text{green pentagon} + \text{blue circle}) = 17$

$\rightarrow \text{green pentagon} + \text{green pentagon} = 8 \rightarrow \text{green pentagon} = 4$

(3)  $\text{green pentagon} + \text{blue circle} = 9 \rightarrow \text{blue circle} = 5$

(4)  $(\text{blue circle} + \text{green pentagon}) + \text{blue circle} + \text{orange star} = 16 \rightarrow \text{orange star} = 2$

Therefore,  $\text{blue circle} + \text{orange star} + \text{orange star} + \text{orange star} = 5 + 2 + 2 + 2 = 11$

## 2014 Eye Level MATH Olympiad [Grade4]

No.	Answer	No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	19	11	21	21	12	31	525	41	④
2	27	12	37	22	8	32	8	42	13
3	23	13	32	23	12	33	6	43	21
4	19	14	12	24	11	34	5	44	24
5	18	15	13	25	5	35	34	45	30
6	14	16	92	26	11	36	72	46	7
7	83	17	255	27	489	37	17	47	②
8	112	18	119	28	516	38	14	48	21
9	146	19	730	29	7	39	29	49	22
10	741	20	5	30	12	40	31	50	9

**[Sol]**

31.  $35 \times 15 = 525$   
 32.  $98 \div 9 = 10R8 \Rightarrow 8$   
 33.  $126 \div 21 = 6$   
 34.  $127 \div 29 = 4R11 \Rightarrow 5$   
 35.  $1234 \div 60 = 20R34 \Rightarrow 34$   
 36.  $6 \times 7 + 5 \times 6 = 42 + 30 = 72$   
 37.  $40 - (14 - 7 + 3 \times 7) = 40 - 23 = 17$   
 38.  $\frac{50}{9} = 5\frac{5}{9} < 6\frac{1}{9} < 8\frac{2}{9} = \frac{74}{9} \Rightarrow 14$   
 39.  $7.52 - 7.23 = 0.29 \Rightarrow 29$   
 40.  $\frac{5}{9} + \frac{1}{6} = \frac{30}{54} + \frac{9}{54} = \frac{39}{54} = \frac{13}{18} \Rightarrow 31$

42. Let the length of the shortest log be  $\square$  cm.

$$\square + \square + \square + 7 = 46$$

therefore,  $\square$  is 13.

43. **1** 1  
**2** 1 + 2  
**3** 1 + 2 + 3  
 ...  
**6** 1 + 2 + 3 + 4 + 5 + 6

44. Complete the table.

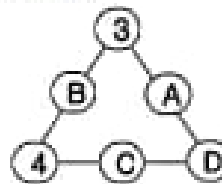
Number of cuts	1	2	3
Number of pieces	2	3	4
Time (min)	8	16	24

45. 101, 111, ... , 191 (10)  
 202, 212, ... , 292 (10)  
 303, 313, ... , 393 (10)

46. Available numbers are 5, 6, 7, 8.

Since  $B=8$ ,  $A+D=12$ ,  $C+D=11$ , then  $D=5$ ,

$A=7$ ,  $C=6$



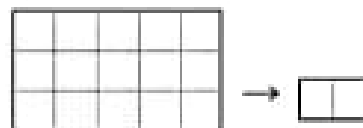
48. We can find the rule as below

$$3 \times 3 - 2 = 7, \quad 5 \times 5 - 4 = 21, \quad 4 \times 4 - 5 = 11,$$

$$3 \times 3 - 7 = 2, \quad 5 \times 5 - 10 = 15$$

Rule :  $B \times B - A = C$  or  $A + C = B \times B$

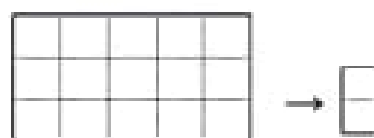
49.



are  $4 \times 3 = 12$  groups



are 2 groups



are  $2 \times 5 = 10$  groups

Therefore, groups of 2 squares are 22.

50.

	Number of arrows that could hit each ring									
1 points	3	2	2	1	1	1	0	0	0	0
2 points	0	1	0	2	1	0	3	2	1	0
4 points	0	0	1	0	1	2	0	1	2	3
Total score	3	4	6	5	7	9	6	8	10	12

The Possible scores : 3, 4, 5, 6, 7, 8, 9, 10, 12

The number of Possible scores : 9

## 2015 Eye Level MATH Olympiad [Grade4]

No.	Answer	No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	17	11	19	21	8	31	832	41	12
2	22	12	57	22	15	32	1	42	③
3	24	13	48	23	8	33	127	43	15
4	20	14	13	24	7	34	51	44	3
5	15	15	11	25	4	35	91	45	①
6	18	16	216	26	8	36	108	46	7
7	94	17	205	27	516	37	860	47	①
8	112	18	40	28	838	38	4	48	22
9	150	19	745	29	7	39	6	49	①
10	603	20	13	30	13	40	58	50	12

**[Sol]**

31.  $26 \times 32 = 832$

32.  $67 \div 6 = 11 \text{ R } 1$

33.  $889 \div 7 = 127$

34.  $627 \div 64 = 9 \text{ R } 51$

35.  $4,782 \div 52 = 91 \text{ R } 50$

36.  $3 \times 2 \times 3 \times 6 = 108$

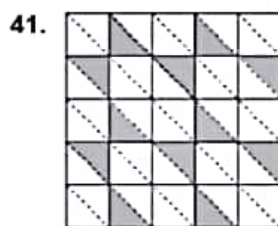
37. 1day 2hr 25min  $\Rightarrow$  26hr 25min  
 $\Rightarrow$  1585min

1-1hr 20min  $\Rightarrow$  860min

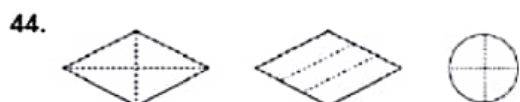
38.  $22 = (7 + \square) \times 2$   
 $\Rightarrow \square = 4$

39. The greatest common factor of 18 and 12: 6

40. 17  $\Rightarrow$  17, 34, 51  
 19  $\Rightarrow$  19, 38, 57



43. first 1  
 second  $1 + 7 = 8$   
 third  $1 + 7 + 7 = 15$

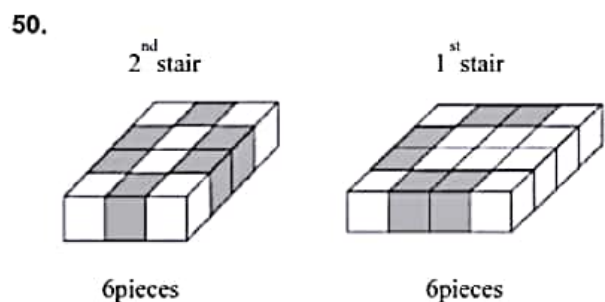


46.  $\begin{pmatrix} 2 \text{ Pears} \\ 2 \text{ apples} \end{pmatrix} \Rightarrow \begin{pmatrix} 1 \text{ Pear} \\ 1 \text{ apple} \end{pmatrix}$   
 $S_{26} \qquad \qquad S_{13}$

$\begin{pmatrix} 4 \text{ pears} \\ 3 \text{ apples} \end{pmatrix} - \begin{pmatrix} 2 \text{ pears} \\ 2 \text{ apples} \end{pmatrix} = \begin{pmatrix} 2 \text{ pears} \\ 1 \text{ apple} \end{pmatrix}$   
 $S_{46} \qquad \qquad S_{26} \qquad \qquad S_{20}$

$\begin{pmatrix} 2 \text{ pears} \\ 1 \text{ apple} \end{pmatrix} - \begin{pmatrix} 1 \text{ pear} \\ 1 \text{ apple} \end{pmatrix} = 1 \text{ pear}$   
 $S_{20} \qquad \qquad S_{13} \qquad \qquad S_7$

48. 23, 24, 25, 26, 27, 28, 29 (7)  
 34, 35, 36, 37, 38, 39 (6)  
 45, 46, 47, 48, 49 (5)  
 56, 57, 58, 59 (4)  
 $\Rightarrow 7 + 6 + 5 + 4 = 22$



## 2016 Eye Level MATH Olympiad [Grade4]

No.	Answer	No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	13	11	19	21	4	31	945	41	①
2	17	12	33	22	10	32	7	42	5
3	21	13	29	23	5	33	127	43	38
4	17	14	15	24	6	34	9	44	13
5	14	15	62	25	6	35	3	45	140
6	27	16	222	26	5	36	640	46	5
7	191	17	132	27	459	37	240	47	18
8	199	18	129	28	277	38	4	48	④
9	106	19	688	29	7	39	12	49	90
10	146	20	15	30	8	40	21	50	234

**[Sol]**

31.  $35 \times 27 = 945$

32.  $58 \div 9 = 6R4$

33.  $889 \div 7 = 127$

34.  $396 \div 44 = 9$

35.  $379 \div 47 = 8R3$

36.  $10000 - ((6000 \div 5) \times 3 + (960 \div 6) \times 36)$   
 $= 10000 - (1200 \times 3 + 160 \times 36)$   
 $= 640$

37

(Seoyoung)  $14400\text{sec} \Rightarrow 14400 \div 60 = 240\text{min}$

(Kyangsun)  $3\text{hr } 30\text{min} \Rightarrow 60 \times 3 + 30 = 210\text{min}$

38.  $5 - 1\frac{1}{3} \times 2 = 5 - 2\frac{2}{3} = 2\frac{1}{3}$

$\Rightarrow 3 + 1 = 4$

39.

$$\begin{array}{r} 12 \overline{) 24 \ 36} \\ \underline{2 \quad 3} \end{array}$$

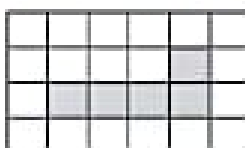
$\rightarrow 12$

40.  $\frac{3}{7} = \frac{3 \times \square}{7 \times \square}$

$7 \times \square - 3 \times \square = 4 \times \square = 12, \quad \square = 3$

$\Rightarrow \frac{9}{21}$

42. The side view looks like this:



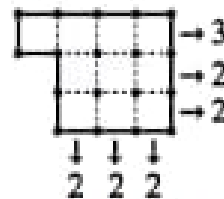
Therefore, the colored squares are 5.

43. The total length of the fence is

$16 + 16 + 20 + 24 = 76(\text{m})$ .

Therefore, you need  $76 \div 2 = 38$  trees.

44. The number of twosome squares in each row and column are:



Therefore, the total number is 13.

45. The rule is as follows:

$7 \times (2 + 1) = 21$

$8 \times (A + 1) = 32 \rightarrow A + 1 = 4 \rightarrow A = 3$

$9 \times (5 + 1) = 54$

$10 \times (8 + 1) = 90$

$11 \times (12 + 1) = B \rightarrow B = 143$

Therefore,  $B - A = 143 - 3 = 140$

46. The smallest number is  $2 + 4 = 6$ , and the biggest number is  $6 + 8 = 14$ . Therefore, different  $a+b$ 's are 6, 8, 10, 12, 14 (five of them).

47. If Helen gives half of her stones to Nathan, the number of stones left to Helen will be the same as the number of stones that Nathan received. But Nathan has 18 more stones. Therefore, Nathan had 18 stones in the beginning.

49. There are 100 numbers from 500 to 599. The following 10 numbers are the same value whether you read it forward or backward:

505, 515, 525, 535, 545, 555, 565,  
575, 585, 595.

Therefore the number you are looking for is  $100 - 10 = 90$ .

50. Find out the correct numbers in ①, ②, ③, ④.

1	A	B	C
4	③	2	①
④	1	⑧	⑦
②	⑥	⑤	3

You cannot put 2, 3 or 4 in ①, therefore it is 1.

You cannot put 1, 3 or 4 in ②, therefore it is 2.

You cannot put 1, 2 or 4 in ③, therefore it is 3.

You cannot put 1, 2 or 4 in ④, therefore it is 3.

The remaining square should be filled as:

1 in ⑤, 4 in ⑥, 2 in A, 2 in ⑦, 4 in ⑧, 3 in B, and 4 in C.

The completed table looks like this.

1	2	3	4
4	3	2	1
3	1	4	2
2	4	1	3

Therefore, the 3-digit number ABC is 234.

## 2017 Eye Level MATH Olympiad [Grade4]

No.	Answer	No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	18	11	12	21	32	31	23	41	21
2	30	12	40	22	2	32	18	42	10
3	20	13	53	23	19	33	390	43	4
4	16	14	41	24	2	34	10	44	10
5	19	15	52	25	4	35	240	45	4
6	15	16	288	26	8	36	17	46	6
7	64	17	187	27	283	37	10	47	5
8	150	18	156	28	582	38	3	48	6
9	121	19	531	29	5	39	7	49	1
10	707	20	10	30	10	40	9	50	7