



Nawapan Wattanawanichkul



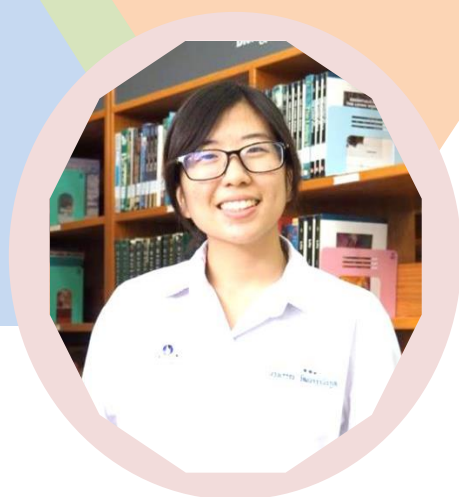
High school student

Portfolio

CURRICULUM VITAE

Nawapan Wattanawanichkul

High School Student



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Personal details

Nickname	Ploy
Date of birth	April 27 th , 1998
Nationality	Thai
Religion	Buddhism
Language	Thai, English



Education

High school	Mahidol Wittayanusorn School, (2013-present)
Middle school	Benjama Maharat School, (2010-2013)
Primary School	Anubarn Ubonratchatani School, (2004-2010)

Research project in mathematics field

Study of overlapped triangles with the maximal overlapped area under translation and rotation

ABSTRACT

Problems about overlapped area are also one of the problems that many mathematicians have studied for decades. In this research, the maximal overlapped area of two arbitrary triangles under translation and rotation were studied. Reflection is not allowed during the process of the research. First, we observed the arrangement of two arbitrary triangles that maximized the overlapped area by using The Geometer's Sketchpad (GSP) and made some conjectures. The results showed that the maximal overlapped area of two triangles that one cannot cover another one occurs when one side of each triangle lies on the same line, overlapping each other, or when two triangles form a star-shaped. In the first case, we could find the unique position of the triangles that gave the maximal overlapped area. However, in the second case, it might require more tools to help us finding the position that give the maximal overlapped area. That is an interesting topic that needs further clarification

Keywords: overlapped area, arbitrary triangle, translation, rotation

ACADEMIC EXCELLENCE & EDUCATION AWARDS

International

National

Mathematics

Others

Year	Honor/ Participation/ Recognition/ Position	International	National	Mathematics	Others
DEC 2015	Certificate of participant in Thai-Japan student science fair Project Presentation 2015, Thailand		✓	✓	
DEC 2015	Certificate of participant in laws competition 2015, Sri Patum University, Bangkok, Thailand		✓		✓
AUG 2015	Certificate of participant in laws competition 2015, Rangsit University, Bangkok, Thailand		✓		✓
AUG 2015	Certificate of participant in laws competition 2015, Children and Youth court, Nakorn Phathom, Thailand		✓		✓
JUN 2015	The project was shown in Kolmogorov readings 2015, Moscow, Russia	✓		✓	
JUN 2015	Complimentary Award in Sunthorn Phu day's art contest 2015		✓		✓
MAR 2015	Certificate of participation in Young Scientist Project Presentation 2015, Bangkok, Thailand		✓	✓	
JAN 2015	Certificate of participation in MWITs Science Fair 2015, Nakorn Pathom, Thailand		✓	✓	
DEC 2014	Complimentary award in team prize in Mathematics competition 2013, Sirindhorn Ratchawittayalai School, Nakorn Pathom, Thailand		✓	✓	
DEC 2014	Silver medal in individual prize in Mathematics competition 2013, Sirindhorn Ratchawittayalai School, Nakorn Pathom, Thailand		✓	✓	
OCT 2014	Certificate of participant in Academic Olympiad camp 1st in Mathematics (IPST) 2014, Bangkok, Thailand		✓	✓	
JULY 2014	Certificate of participant in summer Olympiad camp 2014, Moscow, Russia	✓		✓	
JUN 2014	Complimentary Award in Sunthorn Phu day's art contest 2014		✓		✓
OCT 2013	Certificate of participant in Academic Olympiad camp 1st in Mathematics (IPST) 2013, Bangkok, Thailand		✓	✓	
JULY 2013	Merit medal in individual contest, Champion team in group prize, 1 st runner up team in team contest, BIMC (Bulgaria international Mathematics Competition), Bulgaria	✓		✓	

Other Activities & Community Service

Exchange Program

Environment

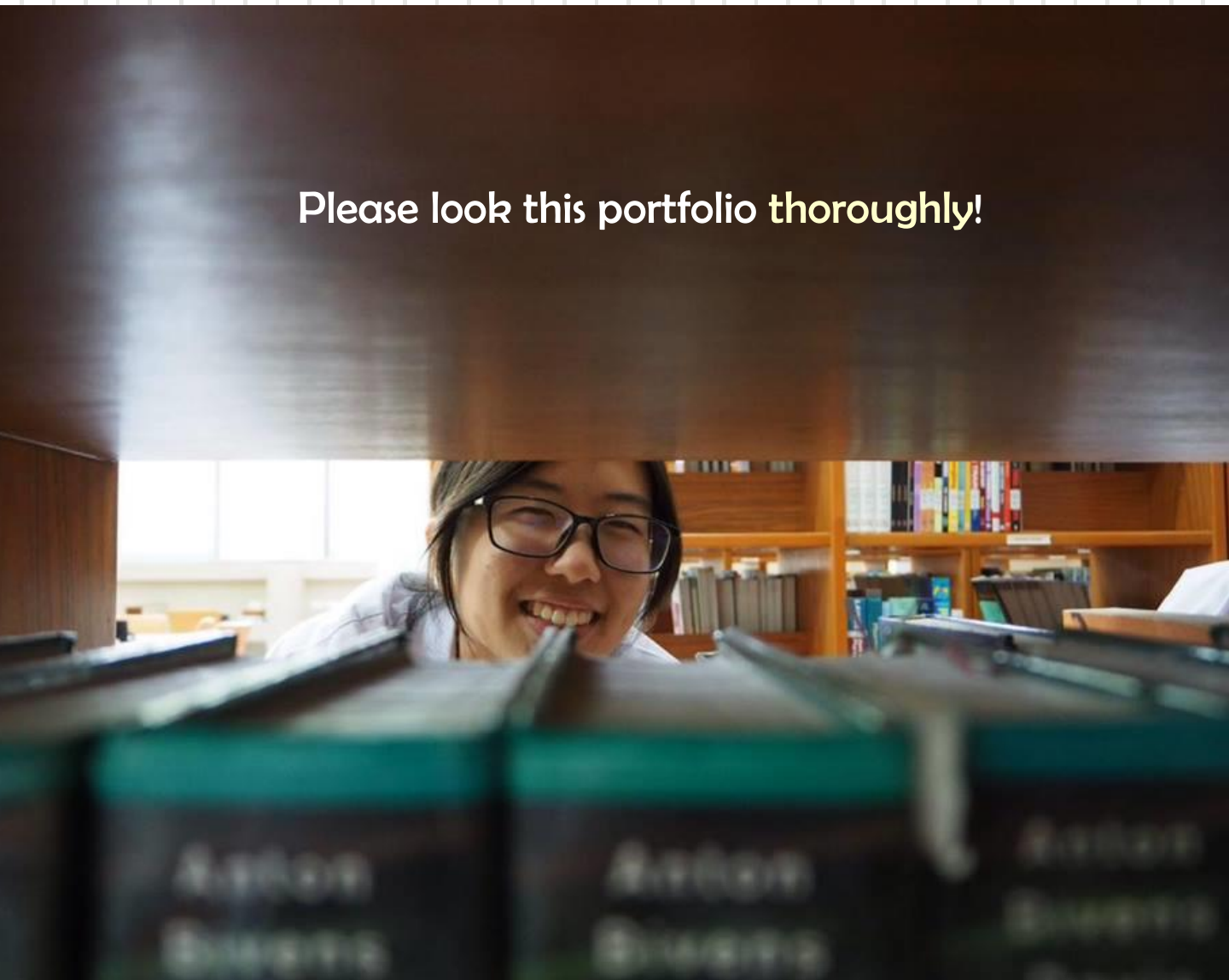
Culture

Others

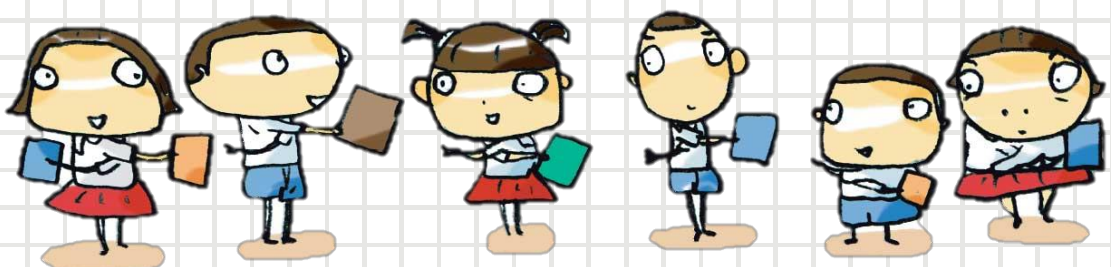
Year	Honor/ Participation/ Recognition/ Position				
JULY 2015	Host of buddy from KSA (Korea science academy of KAIST)	✓			
APR 2015	Participated in exchange program at KSA (Korea science academy of KAIST)	✓			
JAN 2015	participated the camp to preserve the habitat of wildlife, Khoa Yai, Nakorn Ratchasima, Thailand		✓		
DEC 2014	Host of buddy from NJC (National Junior College in Singapore)	✓			
DEC 2014	participated the academic camp and Planted Banana trees for Elephants, Khoa Wong-Khoa Chamuang, Rayong, Thailand		✓		
SEP 2014	participated in Mae Kwanjit's Folk song camp, Suphanburi, Thailand			✓	
AUG 2014	Head of blue team's art section & Designer of blue team's T-shirt				✓
AUG 2014	A volunteer for rural development camp, Wat proud ngai school, Nontaburi, Thailand				✓

Here are all of my
Academic Excellence
, Education Awards and
Precious Experiences!

Please look this portfolio **thoroughly!**



Awards and Experiences in High School



(Mr. Thongchai Chieworchai)
Chairman of Steering Committee
Preecha Chulathorn Science High School


 Mahidol Wittayanusorn School

Certificate of Recognition
 presented to

Nawapan Wattanawanichkul
Mahidol Wittayanusorn School, Thailand

for having successfully participated in,
MWITS SCIENCE FAIR 2015
 January 27 - 30, 2015
 at Mahidol Wittayanusorn School, Nakhon Pathom, Thailand


(Asst. Prof. Dr. Tassanee Nopakongdej)
 The principal of Mahidol Wittayanusorn School

MWITS SCIENCE FAIR 2015

School Activities



2016

Thai dance
in new year party 2016
(Jan 2016)



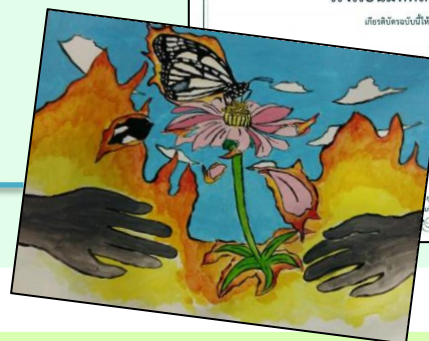
2015

One of the basketball players in
MWITs basketball competition
(NOV 2015)



A representative of room 8's students to
hold phan in teacher's day (Jun 2015)

Complimentary Award in Sunthorn Phu
day's art contest 2015 (Jun 2015)



Staff and Burmese's buddy in MWITs
science fair 2015 (Jan 1015)

School Activities



2014



One of the judges who chose the Pre-MWITs' staff (Nov 2014)

Role play "The Monkey's Paws" in English class (Nov 2014)



participated in Mae Kwanjit's Folk song camp, Suphanburi, Thailand (Sep 2014)

Complimentary Award in Sunthorn Phu day's art contest 2015 (Jun 2014)



Participated in SCIUS camp (camp for all student whose major is science) (Apr 2014)

Sport day : Sritrang games



One of the judges in
painting cut out competition
(Aug 2015)

2015

Head of blue team's art section &
Designer of blue team's T-shirt (Aug 2014)



The first runner up award in painting
cut out competition (Aug 2014)



The winner award in stand cheer
competition (Aug 2013)

2013

Exchange Program



2015



Host of buddy from K&A
(Korea science academy of KAIST)
(July 2015)

Participated in exchange
program at K&A (Korea
science academy of KAIST)
(Apr 2015)



2014

Host of buddy from NJC
(National Junior College
in Singapore) (Dec 2014)



Certificate of participation in
the summer Olympiad camp,
MIPT, Moscow, Russia (July 2014)



Community Service

2015

participated the camp to preserve the habitat of wildlife, Khoa Yai, Nakorn Ratchasima, Thailand (Jan 2015)

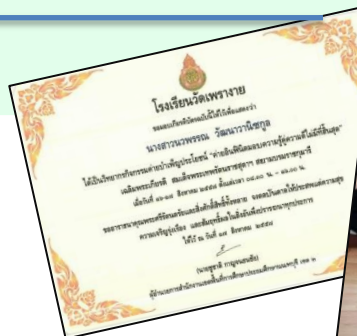


2014

participated the academic camp and Planted Banana trees for Elephants, Khoa Wong-Khoa Chamuang, Rayong, Thailand (Dec 2014)



A volunteer for rural development camp, Wat proud ngai school, Nontaburi, Thailand (Aug 2014)



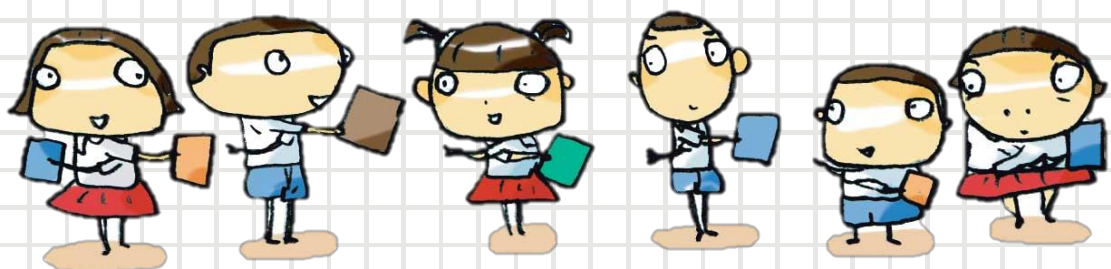
Mahidol Wittayanusorn School...

Thank you to give me
all of these CHANCES!

I LOVE MWITs



Awards from Mathematics Competition



Mathematical Olympiad



2012, 2013 & 2014

Certificate of participation, giving for accomplish the first pre-Olympiad Mathematics training session, from the PO&N, Thailand 2013 & 2014 (Nov)

2012

Silver medal in the 9th Thailand Mathematical Olympiad (May 2012)

1 of 24 student who was chosen to be trained in the first pre-Olympiad Mathematics training session 2012



2011

Certificate of participation in the 8th Thailand Mathematical Olympiad 2011 (May 2011)



International Mathematics Competitions

2013

Merit medal in individual contest,
Champion team in group prize,
1st runner up team in team contest
, BIMC (Bulgaria international Mathematics
Competition), Bulgaria (July 2013)



2012

Bronze medal in individual contest,
2nd runner up team in group prize,
2nd runner up team in team contest,
TIMC (Taiwan international Mathematics
Competition), Taiwan (July 2012)



2010

Gold medal in individual contest,
IMSO (International Mathematics
Olympiad and Science)
,Indonesia (Oct 2010)



2009

Silver medal in individual contest,
Bronze medal in group prize,
Bronze medal in team contest,
PIMC (Philippines international Mathematics
Competition), Philippines, (Nov 2009)



Competitions of the Mathematical association of Thailand

2012

The winner award in individual contest and the winner award in team contest of North Eastern in Mathematics competition of the Mathematical association of Thailand 2012 (Feb 2013)



2011

The complimentary award in individual contest of Thailand and first runner up award in team contest of North Eastern in Mathematics competition of the Mathematical association of Thailand 2011 (Feb 2012)



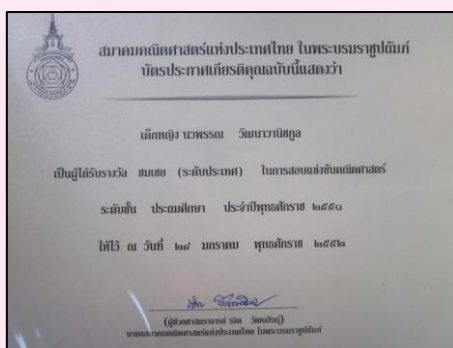
2009

The complimentary award in individual contest and the first runner up award in team contest of Thailand in Mathematics competition of the Mathematical association of Thailand 2012 (Feb 2013)



2008

The complimentary award in individual contest of Thailand in Mathematics competition of the Mathematical association of Thailand 2008 (Feb 2009)



Other Mathematics Competitions

2014



Silver medal in individual contest ,
Complimentary award in team contest
in Mathematics competition at Princess
Sirindhorn's College (Dec 2014)

2013

Certificate of participation in
Mathematics competition at Princess
Sirindhorn's College (Dec 2013)



2012

The winner award in the
Geometer's Sketchpad (GSP)
competition 2012 (Feb 2012)

2009

The winner award in the
Geometer's Sketchpad (GSP)
competition 2009 (Feb 2009)



Other Mathematics Competitions

2013



One of the outstanding youth of Thailand in 2013,
Prime Minister's Office, Bangkok, Thailand (Jan 2013)

2011



One of the outstanding youth of Thailand in 2011, Prime
Minister's Office, Bangkok, Thailand (Jan 2011)



Why I love mathematics?

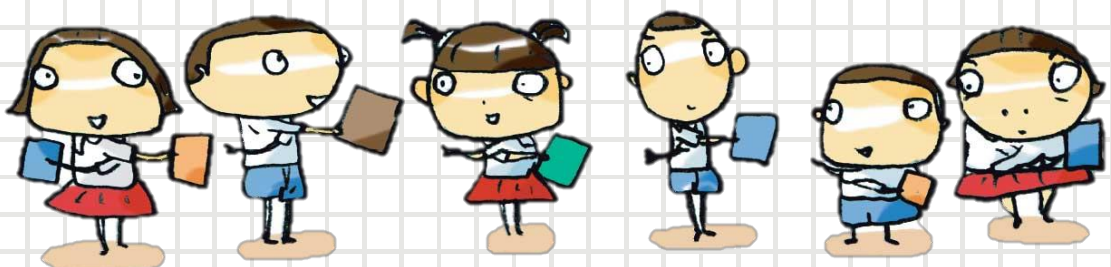
I love it because of him...



, My beloved 'Dad'.

Thank you to show me
how beautiful mathematics is!

Awards from other competitions



Other Competitions

2015



Certificate of participant in laws competition 2015, Sri Patum University, Bangkok, Thailand (Dec 2015)

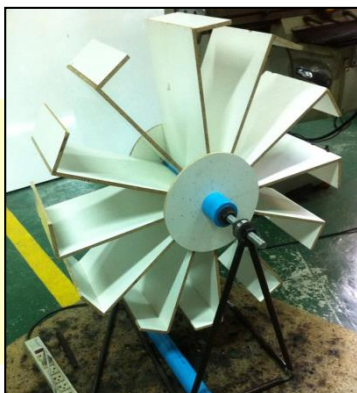
Certificate of participant in laws competition 2015, Rangsit University, Bangkok, Thailand (Aug 2015)



Certificate of participant in laws competition 2015, Children and Youth court, Nakorn Phathom, Thailand (Aug 2015)

2013

Wrote a tale for children
“A Monkey that stole a camera”,
Supanburi, Thailand



Created “Dodecagon shoes Locker”, One of top 5 inventions in MWITs, Nakorn Pathom, Thailand
(The invention was shown in Sirikit’s convention hall)

Every little things would not
have happened,

If I had not been your
daughter...



Thank you mom to support
and stay besides me!

Thank you my friends, family, teachers,
principal and everyone else.



Thank you all of the moments
in my life.

Thank you all of the judges
who are reading this.

Thank you for choosing me
to be here.

Today is going to be one of the most
valuable day in my life.

Our country is going to be
better in **our hands**, I promise.

