

THE ESSENTIAL POCKET BOOK

A SHORT CUT TO SEA-TEACHER PROJECT



Experience the City of Lights in 24 hours.

BY
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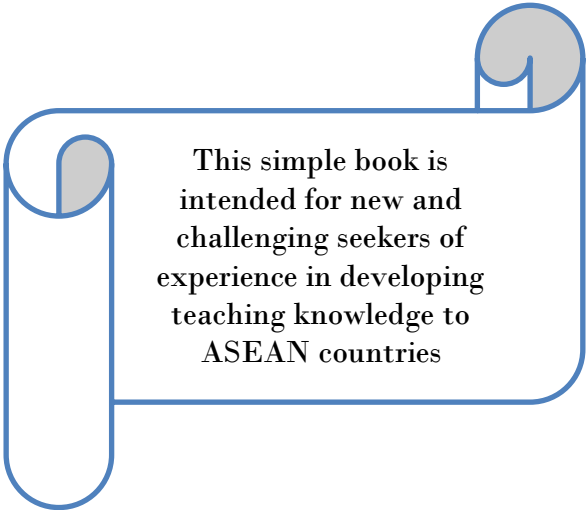
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This simple book is
intended for new and
challenging seekers of
experience in developing
teaching knowledge to
ASEAN countries

Foreword

Thank God, the writer prayed to Allah SWT, the book *A short cut to the SEA Teacher project* can be completed promptly. The author's experience in guiding students who will practice teaching in ASEAN countries provides colour and insight knowledge in the preparation of this book. Also, the author is the implementing coordinator in the implementation of the SEA Teacher project at PGRI Yogyakarta University.

This book is the first book published to facilitate student practice to be more confident and confident to equip themselves in the teaching and learning process. In further interest, this book can be used as a companion in the implementation of the SEA Teacher project by students both in the implementation of microteaching or teaching practices in ASEAN Countries.

As an unforgettable part, the preparation of this book will not always run smoothly unless there is help from the parties concerned. Therefore, the authors thank you very much for the advice that has been given by all parties that cannot be mentioned one by one in

full here. Hopefully, this book can provide benefits for the breadth of insight and knowledge for students.

Yogyakarta, 15 Juni 2020

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Chapter 1

Interview Pre-service Teacher to join SEA- Teacher Project

1. Tell me about yourself

After greeting, shaking hands, and introducing yourself, the next thing the interviewer might want is a story about yourself.

It might seem easy. You often do it in English class, but the interviewer doesn't want to hear all the details. Avoid captions like

I was born in Jakarta. I love playing the computer and surfing the net. Atau, I have two sisters.

The interviewers don't want to know everything about you. They want to know about you and your career development. They want to know about yourself concerning the job they are applying in.

Also, make sure you don't use informal slang or make mistakes in basic grammar.

Example:

I've been working as a junior chef at a small Italian restaurant for two years, and my duties included assisting the head chef and preparing salads. I have always been interested in food and cooking, which was why I chose to follow

*this career path. I
studied at *****
college, where I
gained my first level
cooking diploma.*

2. What are your strengths?

In this one English job interview question, they want to know all your positive qualities. This positive quality should relate to what they are looking for and want. So, before the interview, make sure you're looking for information on the types of people who match the job, especially if you're still beginners and just entering the

workforce. Consider this question as an opportunity to advertise yourself. You are the product and must market yourself. The thing to remember is that not only do you mention some adjectives (all can do so). Instead, use an example to support your points.

For example, you could answer one of the following options:

To be punctual

I'm a punctual person. I always arrive early and complete my work on time. My

*previous job had a
lot of **deadlines**
and I made sure
that I was
organized
and **adhered**
to all my
assignments.*

To be a team-player

*I consider myself to
be a team-player. I
like to work with
other people, and I
find that it's much
easier to achieve
something when*

*everyone works
together and
communicates well.*

To be ambitious (memiliki tujuan)

*I'm ambitious. I
have always set
myself goals, and it
motivates me to
work hard. I have
achieved my goals
so far with my
training, education
and work
experience, and
now I am looking*

*for ways to improve
myself and grow.*

To take initiative (melakukan sesuatu
tanpa disuruh)

*When I work, I
always take the
initiative. If I see
something that
needs doing, I don't
wait for instruction,
and I do it. I
believe that to get
anywhere in life,
and you need this
quality.*

To be proactive (mengerjakan dan mewujudkan)

*I'm proactive.
When I think
about things, I do
them. I like to see
results, and it's
essential in this
industry to be
active and
responsible for
your actions.*

To keep your cool (tetap tenang dalam segala situasi)

I think it's crucial to be able to stay calm when you're working as a reporter. It can get stressful, but one of my most excellent qualities is that I can keep my fresh and I don't allow the pressure to get to me, which helps me achieve all my goals and remain focused.

In the table below, there are a few other words that can help you answer the job interview question above:

Confident (adj)	Confident, not shy
Team building skills (N)	Able to be responsible and lead the group.
To have a good work ethic (V)	Work hard, obey rules, and respect assignments and work.

Focused (Adj)	Able to concentrate
Problem- solver (N)	Can easily find troubleshooting
Negotiate (V)	Could reach a better and profitable deal for you

REMEMBER: You need to give a right and solid answer that the evidence supports, otherwise you'll sound like memorizing. Some companies don't directly ask what your strengths are; they will find out in other words, such as:

- *Why do you think we should hire you?*
- *Why do you think you're the best person for this job?*
- *What can you offer us?*
- *What makes you a good fit for our company?*

3. What are your weaknesses?

What? I have no weaknesses! Of course, there is, nothing perfect. Everybody has a defect, but the interviewer wants to know here is How your efforts fix those weaknesses, and they also want to know how well you know yourself.

*I sometimes am
slower in
completing my tasks
compared to others
because I want to
get things right. I
will double or
sometimes triple-
check documents*

*and files to make
sure everything is
accurate (correct).*

Another trick is to talk about weaknesses (such as irregular) and mention some of the methods you use to solve them.

For instance,

*I have created a **time-
management system**,
which allows me to list
all my duties and
organize my deadlines,
so I have a clearer idea
of what I need to do.*

Chapter 2

Lesson Plan

Lesson plan used teachers to design and design the learning that will be done by it. This Lesson plan will be the teacher's guide if you are having difficulty developing the activities in the classroom. Besides, the lesson plan can also be a benchmark to achieve competency that should be completed by the students through the learning process. In the preparation of the lesson plan, several principles must be met, some of which are learning objective and

learning step. Here is a lesson plan for teaching Pythagoras theorem.

**Grade 8 Mathematics: Pythagorean
Theorem**

Learning Objectives:

With learning discovery, students understand Pythagoras proving theorem and use in various manipulative operations through ramification activities.

Students can understand the application of Pythagoras ' theorem and apply it in

various manipulative ways in resolving the problem.

In Grade 8 SMP, students learn some concepts related to the Pythagorean theorem. To determine this, some tools must support the process of investigating the Pythagoras theorem. In proving the theorem, students will be invited to use the elbow-elbow and its association.

Activity 1: Introduction of Pythagorean Theorem

Time prediction: 10 minutes

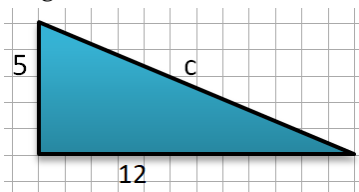
Tools used:

Blackboard/whiteboard, erasers,
markers, notebooks, and projectors.

Steps of Learning :

1. The teacher asks students in the class: "Do you already know about the elbow-elbows? If already, what do you guys remember and understand from the triangle of the elbow?"

2. The teacher accommodates all student responses in class and writes them on the board.
3. To recall, guess which one is called the slash? Example value c is 13 how to get it?



4. If the student's response has been aware of the completion and use of Pythagoras' theorem, then the teacher invites students directly to the activity 2. But if no one has given a response to the use of Pythagoras' theorem, then the teacher introduced the origin of

Pythagoras ' theorem ($a^2 + b^2 = c^2$) first. The class will be divided into groups, and then each group will acquire different material to demonstrate the formula of Pythagoras ' theorems. As an appreciation, there will be a sharing and discussion session to sharpen the knowledge that has been gained.

**Activity 2: Prove the truth of the
Pythagorean theorem and its
relation to other concepts**

Time prediction: 20 minutes

Separate the class into two groups.

Group 1

Tools used:

- Four congruent triangles with the side size of the circumscision A and B. Provide doubled.
- Pencil

- Eraser
- Square with size $(A + B)$. Provide doubling.

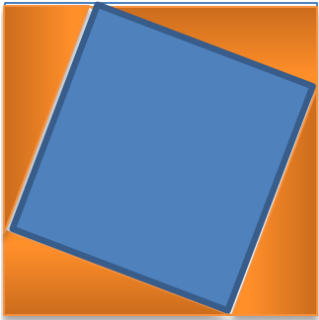
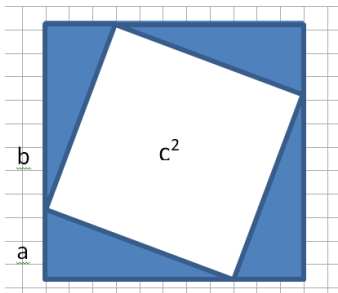
Learning step:

Each student will be given material used to prove the truth of the Pythagorean theorem.

Group 1: geometric proof

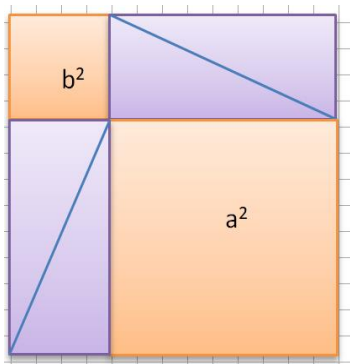
Instructions:

Manipulate the four triangles in a square provided to show $a^2 + b^2 = c^2$.
The area of the square inside is c^2 .



Then rearrange the rectangles by modifying them so that the Segitia

builds in pairs. Be the picture as below.



Based on the second area of the square, it will be $a^2 + b^2 = c^2$.

As a form of reinforcement, the teacher can explain and confirm the

evidence of Pythagoras ' theorem,
namely:

$$(a + b)^2 = 4 \cdot ab/2 + c^2$$

$$c^2 = (a + b)^2 - 4 \cdot ab/2$$

$$2c^2 = 2a^2 + 2b^2.$$

$$c^2 = a^2 + b^2$$

Group 2. Proof through simplification

Tools and Materials:

- Ruler
- Scissors
- Cutter
- Poll point
- Used Box
- styrofoam 50 cm x 50 cm
- Paper Astro 4 colours
- double tip
- tip

Learning step:

Students will prove the Pythagorean theorem by arranging square pieces to show that the sum of squares from both sides of a right triangle equal to the square of the slash on the committee.

Instructions:

Using the square and triangle pieces provided, prove that $a^2 + b^2 = c^2$.

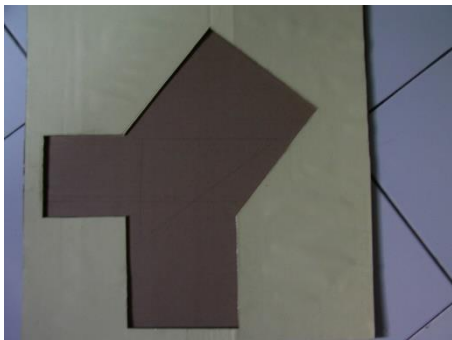
Hint: 1 tile = 1 inch²



Working steps:

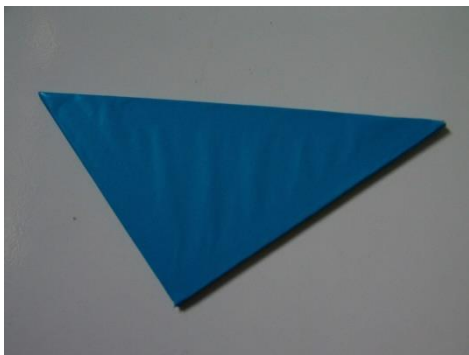
1. Cut cardboard with size 50 cm x 50 cm.
2. Create a square shape pattern with a size of 4 cm x 4 cm as much as 50 pieces and make the elbow-elbow benthic with the base size of 12 cm, height = 16 cm, and the tilt side = 20 cm on the cardboard that has been cut.
3. The pattern that pictures on

cardboard according to the shape of the puzzle pattern to be created.



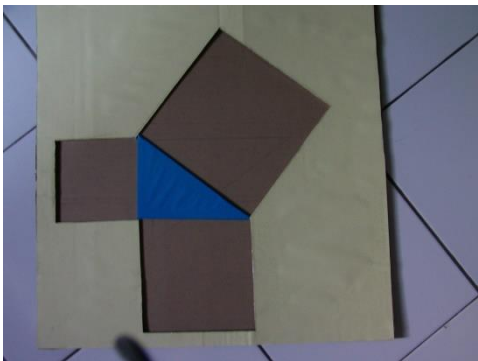
4. Cut cardboard according to the pattern that has been created.
5. Lapisi cardboard that is using Manila paper.
6. Attach to the Stereofoam according to size.
7. Next, cover small pieces of

cardboard with colour marble paper according to taste. Suppose 20 pieces of green colour, 16 colours orange, and nine pieces of red with a blue-angled triangle.





8. Attach the right triangle to the middle of the cardboard.

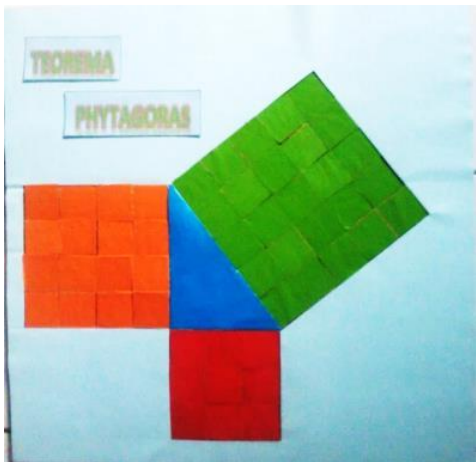


9. Paste the title print out on the top left.



How to use props:

1. In blue, there is a triangular blue triangle, a red square unit of 9 pieces, a green of 25 pieces and an orange of 16 pieces.



2. We suppose the sides of the right triangle are upright with a bottom side of the elbow-elbow with B , and the angled side with c .
3. So that the orange rectangle has
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an area of $= a \times a = a^2$ dan The red square has an area $= b \times b = b^2$.

4. Then we move each unit of orange and red to the angled side of the right triangle.



5. The red and orange units can meet the angled side length of c unit.

Conclusion of the learning:

$$c^2 = a^2 + b^2 \text{ or}$$

$$a^2 + b^2 = c^2$$

Prediction of learning reflection::

- Achievement of learning competence in proving the Pythagorean theorem. Whether it has been successful or not.
- Interest in learning activities by students and how to find solutions to the challenges given to prove the Pythagorean Theorem
- Activities planned by the teacher can be connected one step by step
- In a typical classroom, each task

could be explored over several periods in small groups.

- Exploration in the classroom. Can it run smoothly or not. Students may have difficulty using props, so need the guidance of teachers.
- The youtube video helped to consolidate understanding gained from the exploration period.
- In the learning process, the teacher can display the video directing the operation of Pythagoras ' proving theorem. It is in anticipation of the teacher's fatigue in explaining and describing the same thing repeatedly, so it will be more effective if the video is played short and can be repeated to

demonstrate the props.

- Teachers should conduct a personal demonstration to know the difficulties that the students may be experiencing. It also allows teachers to find the prediction of the students' questions in the process of using props.
- Teachers should have a broad knowledge and understanding of the process of proving Pythagoras' evidence so that the tone of various measures prove the theorems.
- When practising props, teachers should go around observing how the student process is thoughtful

and creative in drafting the evidence. This activity allows teachers to find questions of students who convey their difficulties or unwillingness in studying Pythagoras ' theorem. If so, the teacher must have a way to motivate the students with the exciting things still so that the students feel the benefit of studying the Pythagoras theorem

- This activity will be better if the teacher gives an exception to the relation of the Pythagoras theorems with lessons or knowledge that students already have at previous meetings.
- If there is still learning time, the

teacher can modify the learning strategy with discussion and presentation or convey his knowledge to a group of friends or classmates. one alternative approach that can be used efficiently is the think-pair-share learning model

- It would have been valuable to allow students to engage in think pair share at their table groups before sharing with the whole group during the initial brainstorm.

Chapter 3.

Student Worksheet

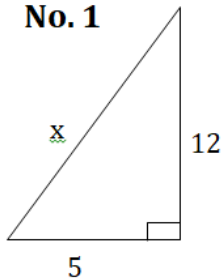
PYTHAGORAS THEOREM

Student Activity

NAME:

Find the hypotenuse of this triangle.
There is some exercise that already done
and to be an example of the steps to get
the solution.

No. 1



$$x^2 = 5^2 + 12^2$$

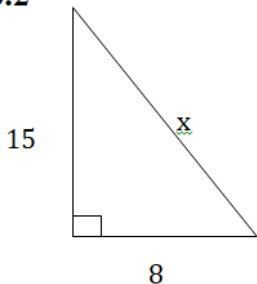
$$x^2 = 25 + 144$$

$$x^2 = 169$$

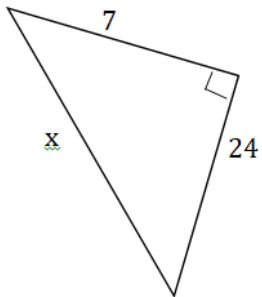
$$x = \sqrt{169}$$

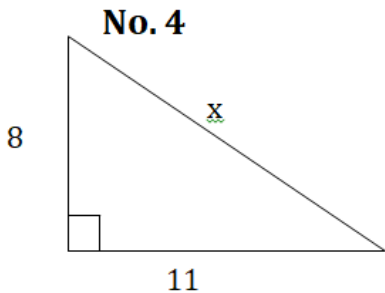
$$x = 13$$

No.2



No. 3





$$\underline{x^2} = 8^2 + 11^2$$

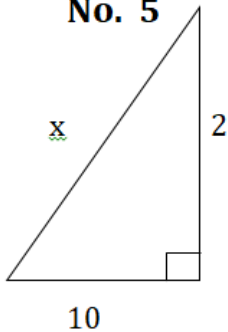
$$\underline{x^2} = 64 + 121$$

$$\underline{x^2} = 185$$

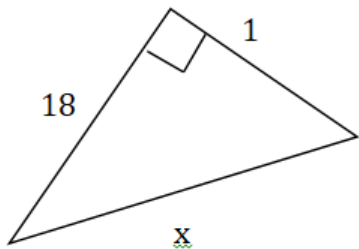
$$x = \underline{\sqrt{185}}$$

$$x = 13.60(\text{c. t. } .2.\text{d.p.})$$

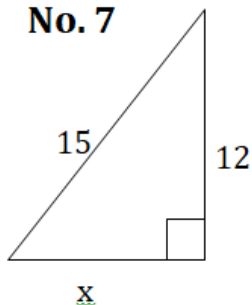
No. 5



No. 6



No. 7



$$\underline{15^2} = x^2 + 12^2$$

$$225 = \underline{x^2} + 144$$

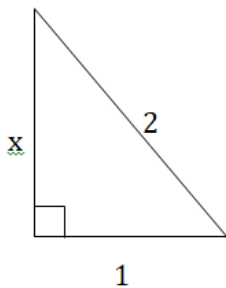
$$225 - 144 = x^2$$

$$81 = x^2$$

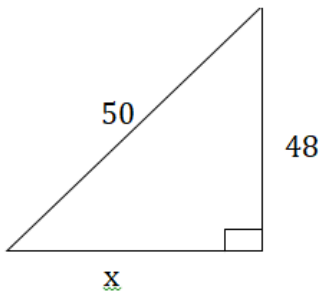
$$\sqrt{81} = x$$

$$9 = x$$

No. 8

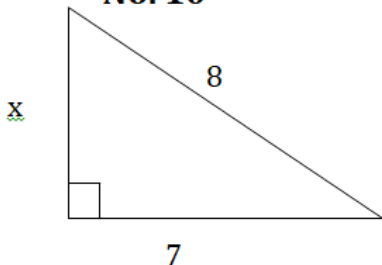


No. 9



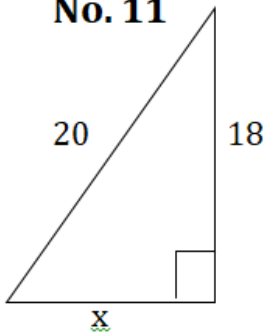
Activate V
Go to Setting

No. 10

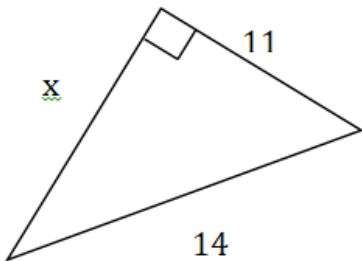


$$\begin{aligned}8^2 &= x^2 + 7^2 \\64 &= x^2 + 49 \\64 - 49 &= x^2 \\15 &= x^2 \\\sqrt{15} &= x \\3 \cdot 87 &= x(\text{c.t.2.d.p.})\end{aligned}$$

No. 11



No. 12



Activate Windows
Go to Settings to activate Windows.

REFERENCES

- Brown, H. D. (2003). *the Analysis of Teachers' Lesson Plan in Implementing Theme-Based Instruction for Teaching English To Young Learners. Journal of English and Education* (Vol. 2014, p. 140).
- Dougherty, E., Billings, L., Roberts, T., & ASCD. (2016). *The Better Writing Breakthrough: Connecting Student Thinking and Discussion to Inspire Great Writing. ASCD. ASCD.*
- Kerry, T. (2010). *Cross-curricular teaching in primary school: Planning and facilitating imaginative lessons. Cross-Curricular Teaching in the Primary School: Planning and Facilitating*

Imaginative Lessons (pp. 1–190).
Routledge Taylor & Francis
Group.

Mehring, J & Leis, A., 2018
Innovations in Flipping the
Language Classroom. Springer,
Singapore.

Rüland, J. (2017). *The Indonesian
Way. The Indonesian Way.*
Stanford University Press.

Saito, E., Murase, M., Tsukui, A., &
Yeo, J. Lesson Study for
Learning Community: A guide to
sustainable school reform. London:
Routledge.