

MATH

คณิตศาสตร์ EP ป.6 | SUCCESS

: Fun practice everyday, to build basis
and develop perfect Mathematics skills.

GRADE
6



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คณิตศาสตร์
EP U.6

Practice Mathematics workbook for English Program (EP) students
แบบพิมพ์ที่ดีที่สุดในประเทศไทย 旨在บ่มเพาะความอัจฉริยะ สำหรับนักเรียนที่ต้องเรียนภาษาไทยอังกฤษ (EP)



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EXAMINATION

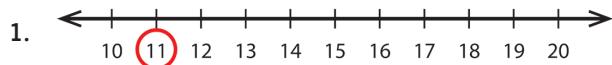
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Exercise 3

SCORE

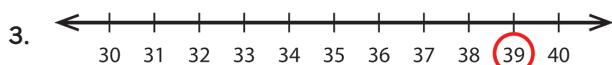
Round the given number to the nearest ten.



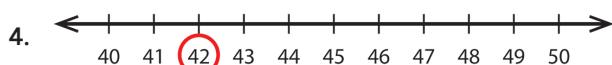
The nearest ten of 11 is _____



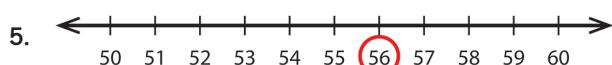
The nearest ten of 24 is _____



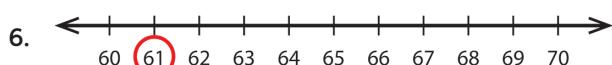
The nearest ten of 39 is _____



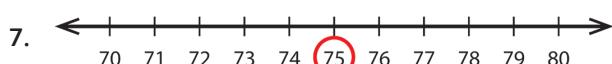
The nearest ten of 42 is _____



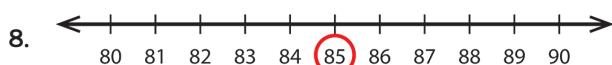
The nearest ten of 56 is _____



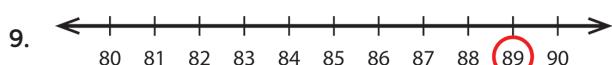
The nearest ten of 61 is _____



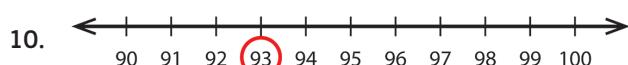
The nearest ten of 75 is _____



The nearest ten of 85 is _____



The nearest ten of 89 is _____



The nearest ten of 93 is _____

Exercise 28

SCORE

Find the greatest common factor by factorization.



16, 36

$$16 = 2 \times 2 \times 2 \times 2$$

$$36 = 2 \times 2 \times 3 \times 3$$

The greatest common factor of 16 and 36 is $2 \times 2 = 4$.

1. 66, 30

$$66 =$$

$$30 =$$

The greatest common factor of 66 and 30 is

2. 52, 92

$$52 =$$

$$92 =$$

The greatest common factor of 52 and 92 is

3. 38, 76

$$38 =$$

$$76 =$$

The greatest common factor of 38 and 76 is

4. 40, 64

$$40 =$$

$$64 =$$

The greatest common factor of 40 and 64 is

5. 42, 63

$$42 =$$

$$63 =$$

The greatest common factor of 42 and 63 is

6. 56, 48

$$56 =$$

$$48 =$$

The greatest common factor of 56 and 48 is



Division of mixed number

To divide the mixed number, we have to convert the mixed number into the fraction first then we use the reciprocal to do it by turn the second fraction upside down. Then, we multiply the first fraction by the fraction that we turn it or that reciprocal and simplify the fraction if needed.

การหารจำนวนคละ เราต้องแปลงจำนวนคละให้เป็นเศษส่วนก่อน จากนั้นเราจึงใช้ทฤษฎีส่วนกลับเพื่อหารด้วยการกลับเศษส่วนตัวที่สอง จากนั้นจึงคูณเศษส่วนตัวแรกด้วยเศษส่วนที่เรากลับแล้วหรือส่วนกลับ และทำให้อยู่ในรูปอย่างง่าย



$$2\frac{4}{5} \div 1\frac{2}{3} = \square$$

Step 1: Convert the mixed number into the fraction.

ขั้นตอนที่ 1: แปลงจำนวนคละให้อยู่ในรูปเศษส่วน

$$2\frac{4}{5} \div 1\frac{2}{3} = \frac{14}{5} \div \frac{5}{3}$$

Step 2: Turn the second fraction upside down. So, it becomes the reciprocal.

ขั้นตอนที่ 2: กลับเศษส่วนของจำนวนที่สอง ให้กลายเป็นส่วนกลับ

$$\frac{5}{3} \text{ becomes } \frac{3}{5}$$

Step 3: Multiply the first fraction by that reciprocal and simplify the fraction if needed.

ขั้นตอนที่ 3: คูณเศษส่วนจำนวนแรกด้วยส่วนกลับของจำนวนที่สอง

$$\begin{aligned} 2\frac{4}{5} \div 1\frac{2}{3} &= \frac{14}{5} \div \frac{5}{3} \\ &= \frac{14}{5} \times \frac{3}{5} \\ &= \frac{14 \times 3}{5 \times 5} \\ &= \frac{42}{25} \\ &= 1\frac{17}{25} \end{aligned}$$

Exercise 54

Show the solution and fill the answer.

1. $4\frac{5}{8} \div \frac{1}{2} =$ _____

2. $5\frac{1}{4} \div 1\frac{1}{2} =$ _____

3. $3\frac{4}{5} \div 7\frac{2}{5} =$ _____

4. $2\frac{4}{5} \div \frac{6}{7} =$ _____





Solve the equation by multiplication or division the same value

To solve the equation by multiply or divide the same value, we have to multiply or divide the number until we have only the variable on one side.

การแก้สมการด้วยการนำตัวเลขคูณหรือหาร เราต้องคูณหรือหารตัวเลข จนกระทั่งเราได้ตัวแปรตัวเดียวอยู่ที่ด้านหนึ่ง



$$A \div 2 = 3$$

$$\begin{aligned} A \div 2 &= 3 \\ \frac{A}{2} \times 2 &= 3 \times 2 \\ A &= 6 \end{aligned}$$

Check the answer: $6 \div 2 = 3$



$$6 \times B = 18$$

$$\begin{aligned} 6 \times B &= 18 \\ \frac{6 \times B}{6} &= \frac{18}{6} \\ B &= 3 \end{aligned}$$

Check the answer: $6 \times 3 = 18$

Exercise 112

Solve the equation and check the answer.

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1. $B \times 4 = 60$

Check the answer: _____

2. $C \div 15 = 75$

Check the answer: _____

3. $31 = D \div 4$

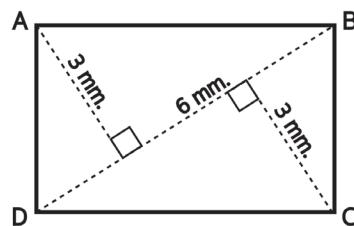
Check the answer: _____

4. $510 = 51 \times E$

Check the answer: _____

Exercise 121

Show the solution of find the area of each figure.

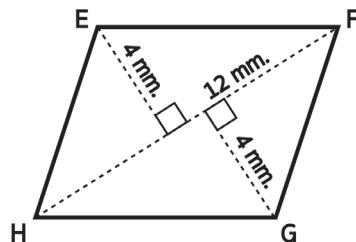


$$\square ABCD = \triangle ABD + \triangle BCD$$

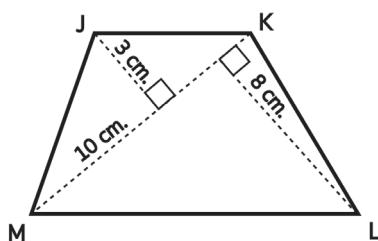
$$\begin{aligned} &= \left(\frac{1}{2} \times 6 \times 3\right) + \left(\frac{1}{2} \times 6 \times 3\right) \\ &= 9 + 9 \\ &= 18 \end{aligned}$$

So, the area of $\square ABCD$ is 18 mm^2 .

1.

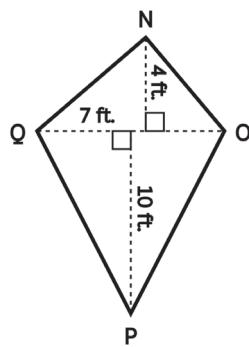


2.

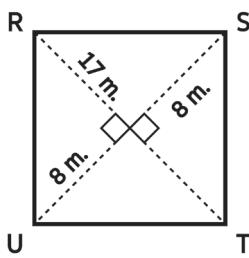




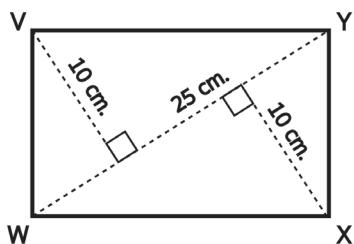
3.



4.



5.

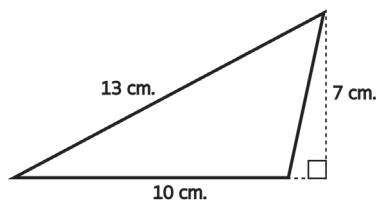


Exercise 136

SCORE

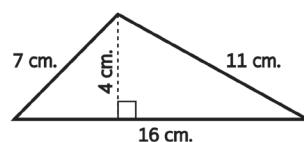
Find the area of the given triangle.

1.



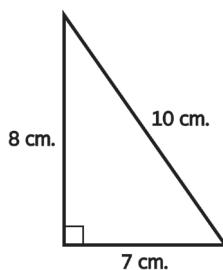
The area of triangle is _____

2.



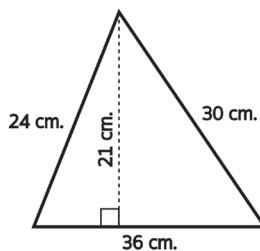
The area of triangle is _____

3.



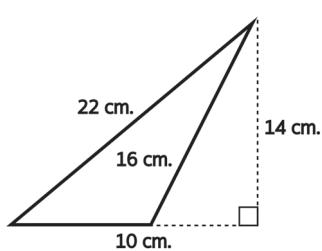
The area of triangle is _____

4.



The area of triangle is _____

5.



The area of triangle is _____



Making line graph



the amount of the people in 2005 to 2008

Year	2005	2006	2007	2008
People	25	15	20	30

1. Draw the vertical scale with the tick marks, label and write the scale.

วาดมาตราส่วนแนวตั้งด้วยเครื่องหมายขีด ซึ่ง มาตราส่วนแนวตั้ง และเขียนมาตราส่วน

2. Draw the horizontal scale with the tick marks, label and write the scale.

วาดมาตราส่วนแนวนอนด้วยเครื่องหมายขีด ซึ่งมาตราส่วนแนวนอน และเขียนมาตราส่วน

Number
(people)

40
35
30
25
20
15
10
5
0

Number
(people)

40
35
30
25
20
15
10
5
0

2005 2006 2007 2008 → Years

3. Put the dot for each data value

ใส่จุดสำหรับแต่ละค่าข้อมูล

Number
(people)

40
35
30
25
20
15
10
5
0

2005 2006 2007 2008 → Years

4. Connect the dots by the line

เชื่อมต่อจุดด้วยเส้น

Number
(people)

40
35
30
25
20
15
10
5
0

2005 2006 2007 2008 → Years

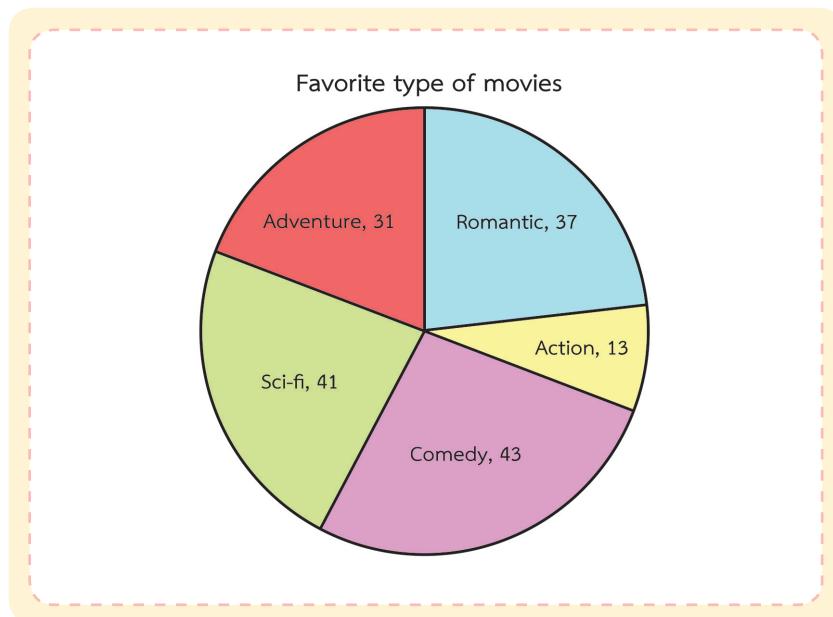


Exercise 168

SCORE

Answer the question by given pie chart.

The pie chart shows the favorite type of movie.



1. How many people like adventure movie?

2. How many people like romantic movie?

3. How many people like action movie?

4. How many people like comedy movie?

5. How many people like sci-fi movie?



Chapter 7

3-Dimensional geometry and Volume of rectangle prism

Circle the correct answer.

1. What is the 3D shape of the following picture?

- a. pentagonal prism
- b. triangular prism
- c. rectangular prism
- d. square prism



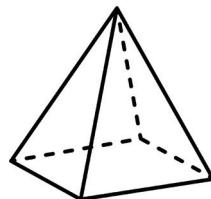
2. What is the 3D shape of the following picture?

- a. prism
- b. cone
- c. cylinder
- d. sphere



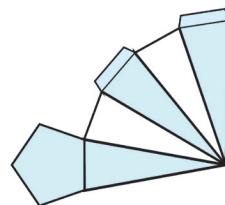
3. What is the 3D shape of the following picture?

- a. triangular prism
- b. rectangular prism
- c. triangular pyramid
- d. rectangular pyramid



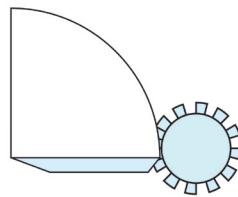
4. What is the 3D shape of the following unfolding picture?

- a. pentagonal pyramid
- b. square pyramid
- c. pentagonal prism
- d. square prism



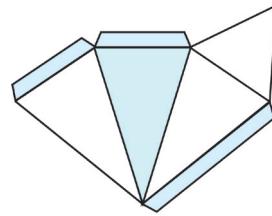
5. What is the 3D shape of the following unfolding picture?

- a. prism
- b. cylinder
- c. cone
- d. pyramid



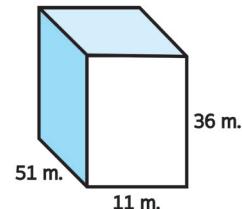
6. What is the 3D shape of the following unfolding picture?

- a. prism
- b. cylinder
- c. cone
- d. pyramid



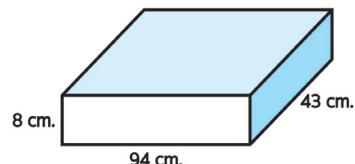
7. What is the volume of the following figure?

- a. $18,513 \text{ m}^3$
- b. $19,074 \text{ m}^3$
- c. $19,635 \text{ m}^3$
- d. $20,196 \text{ m}^3$



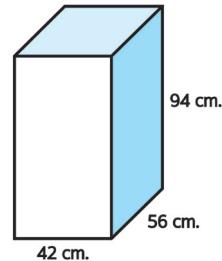
8. What is the volume of the following figure?

- a. $24,252 \text{ cm}^3$
- b. $28,294 \text{ cm}^3$
- c. $32,336 \text{ cm}^3$
- d. $36,378 \text{ cm}^3$



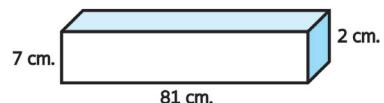
9. What is the volume of the following figure?

- a. $221,088 \text{ cm}^3$
- b. $223,440 \text{ cm}^3$
- c. $225,792 \text{ cm}^3$
- d. $228,144 \text{ cm}^3$



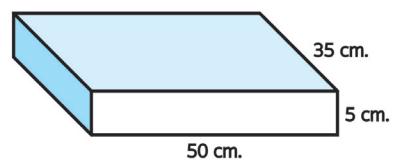
10. What is the volume of the following figure?

- a. 567 cm^3
- b. $1,134 \text{ cm}^3$
- c. $1,701 \text{ cm}^3$
- d. $2,268 \text{ cm}^3$



11. What is the volume of the following figure?

- a. $8,750 \text{ cm}^3$
- b. $10,500 \text{ cm}^3$
- c. $12,250 \text{ cm}^3$
- d. $14,000 \text{ cm}^3$





Greatest Common Factor (by factorization)

Exercise 28

Find the greatest common factor by factorization.

1. 66, 30

$$66 = 2 \times 3 \times 11$$

$$30 = 2 \times 2 \times 3 \times 3$$

The greatest common factor of 66 and 30 is $2 \times 3 = 6$

2. 52, 92

$$52 = 2 \times 2 \times 13$$

$$92 = 2 \times 2 \times 23$$

The greatest common factor of 52 and 92 is $2 \times 2 = 4$

3. 38, 76

$$38 = 2 \times 19$$

$$76 = 2 \times 2 \times 19$$

The greatest common factor of 38 and 76 is $2 \times 19 = 38$

4. 40, 64

$$40 = 2 \times 2 \times 2 \times 5$$

$$64 = 2 \times 2 \times 2 \times 2 \times 2$$

The greatest common factor of 40 and 64 is $2 \times 2 \times 2 = 8$

5. 42, 63

$$42 = 2 \times 3 \times 7$$

$$63 = 3 \times 3 \times 7$$

The greatest common factor of 42 and 63 is $3 \times 7 = 21$

6. 56, 48

$$56 = 2 \times 2 \times 2 \times 7$$

$$48 = 2 \times 2 \times 2 \times 2 \times 3$$

The greatest common factor of 56 and 48 is $2 \times 2 \times 2 = 8$

7. 55, 20

$$55 = 5 \times 11$$

$$20 = 2 \times 2 \times 5$$

The greatest common factor of 55 and 20 is 5

8. 45, 15

$$45 = 3 \times 3 \times 5$$

$$15 = 3 \times 5$$

The greatest common factor of 45 and 15 is $3 \times 5 = 15$

9. 70, 105

$$70 = 2 \times 5 \times 7$$

$$105 = 3 \times 5 \times 7$$

The greatest common factor of 70 and 105 is $5 \times 7 = 35$

10. 48, 84

$$48 = 2 \times 2 \times 2 \times 2 \times 3$$

$$84 = 2 \times 2 \times 3 \times 7$$

The greatest common factor of 48 and 84 is $2 \times 2 \times 3 = 12$

$$3\frac{4}{5} \div 7\frac{2}{5} = 9\frac{1}{4}$$

$$\begin{aligned}3\frac{4}{5} \div 7\frac{2}{5} &= \frac{19}{5} \div \frac{37}{5} \\&= \frac{19 \times 5}{5 \times 37} \\&= \frac{19 \times 5}{5 \times 37} \\&= \frac{19}{37}\end{aligned}$$

$$4. 2\frac{4}{5} \div \frac{6}{7} = 3\frac{4}{15}$$

$$\begin{aligned}2\frac{4}{5} \div \frac{6}{7} &= \frac{14}{5} \div \frac{6}{7} \\&= \frac{14 \times 7}{5 \times 6} \\&= \frac{7 \times 7}{5 \times 3} \\&= \frac{49}{15} \\&= 3\frac{4}{15}\end{aligned}$$

$$5. 3\frac{6}{8} \div 5\frac{1}{4} = \frac{5}{7}$$

$$\begin{aligned}3\frac{6}{8} \div 5\frac{1}{4} &= \frac{30}{8} \div \frac{21}{4} \\&= \frac{10 \cancel{30} \times 4^1}{2 \cancel{8} \times \cancel{21}^7} \\&= \frac{5 \cancel{10} \times 1}{1 \cancel{2} \times 7} \\&= \frac{5}{7}\end{aligned}$$

$$6. 3\frac{2}{4} \div \frac{5}{8} = 5\frac{3}{5}$$

$$\begin{aligned}3\frac{2}{4} \div \frac{5}{8} &= \frac{14}{4} \div \frac{5}{8} \\&= \frac{14 \times 8}{2 \cancel{4} \times \cancel{5}^4} \\&= \frac{7 \times 8}{1 \cancel{2} \times 5} \\&= \frac{28}{5} \\&= 5\frac{3}{5}\end{aligned}$$

$$7. 2\frac{5}{6} \div \frac{3}{8} = 7\frac{5}{9}$$

$$\begin{aligned}2\frac{5}{6} \div \frac{3}{8} &= \frac{17}{6} \div \frac{3}{8} \\&= \frac{17 \cancel{8}^4}{3 \cancel{6} \times 3} \\&= \frac{17 \times 4}{3 \times 3} \\&= \frac{68}{9} \\&= 7\frac{5}{9}\end{aligned}$$

$$8. 2\frac{3}{6} \div 1\frac{1}{4} = 2$$

$$\begin{aligned}2\frac{3}{6} \div 1\frac{1}{4} &= \frac{15}{6} \div \frac{5}{4} \\&= \frac{15 \cancel{4}^2}{3 \cancel{6} \times \cancel{5}^1} \\&= \frac{1 \cancel{3} \times 2}{1 \cancel{3} \times 1} \\&= \frac{2}{1} \\&= 2\end{aligned}$$

$$9. 6\frac{4}{5} \div \frac{1}{2} = 13\frac{3}{5}$$

$$\begin{aligned}6\frac{4}{5} \div \frac{1}{2} &= \frac{34}{5} \div \frac{1}{2} \\&= \frac{34 \times 2}{5 \times 1} \\&= \frac{34 \times 2}{5 \times 1} \\&= \frac{68}{5} \\&= 13\frac{3}{5}\end{aligned}$$

$$10. 4\frac{3}{6} \div \frac{5}{8} = 7\frac{1}{5}$$

$$\begin{aligned}4\frac{3}{6} \div \frac{5}{8} &= \frac{27}{6} \div \frac{5}{8} \\&= \frac{27 \cancel{8}^4}{9 \cancel{6} \times 5} \\&= \frac{9 \times 8^4}{1 \cancel{2} \times 5} \\&= \frac{36}{5} \\&= 7\frac{1}{5}\end{aligned}$$



Finding area of quadrilateral by using diagonal

Exercise 121

Show the solution of find the area of each figure.

$$\begin{aligned} 1. \square EFGH &= \triangle EFH + \triangle FGH \\ &= \left(\frac{1}{2} \times 12 \times 4\right) + \left(\frac{1}{2} \times 12 \times 4\right) \\ &= 24 + 24 \\ &= 48 \end{aligned}$$

So, the area of $\square EFGH$ is 48 mm^2 .

$$\begin{aligned} 3. \square QNOP &= \triangle QNO + \triangle QOP \\ &= \left(\frac{1}{2} \times 7 \times 4\right) + \left(\frac{1}{2} \times 7 \times 10\right) \\ &= 14 + 35 \\ &= 49 \end{aligned}$$

So, the area of $\square QNOP$ is 49 ft^2 .

$$\begin{aligned} 5. \square VYXW &= \triangle VYW + \triangle WYX \\ &= \left(\frac{1}{2} \times 25 \times 10\right) + \left(\frac{1}{2} \times 25 \times 10\right) \\ &= 125 + 125 \\ &= 250 \end{aligned}$$

So, the area of $\square VYXW$ is 250 cm^2 .

$$\begin{aligned} 7. \square NHYP &= \triangle NHY + \triangle NYP \\ &= \left(\frac{1}{2} \times 24 \times 10\right) + \left(\frac{1}{2} \times 24 \times 18\right) \\ &= 120 + 216 \\ &= 336 \end{aligned}$$

So, the area of $\square NHYP$ is 336 m^2 .

$$\begin{aligned} 9. \square QZSA &= \triangle AQZ + \triangle AZS \\ &= \left(\frac{1}{2} \times 22 \times 6\right) + \left(\frac{1}{2} \times 22 \times 18\right) \\ &= 66 + 198 \\ &= 264 \end{aligned}$$

So, the area of $\square QZSA$ is 264 ft^2 .

$$\begin{aligned} 2. \square JKLM &= \triangle JKM + \triangle KLM \\ &= \left(\frac{1}{2} \times 10 \times 3\right) + \left(\frac{1}{2} \times 10 \times 8\right) \\ &= 15 + 40 \\ &= 55 \end{aligned}$$

So, the area of $\square JKLM$ is 55 cm^2 .

$$\begin{aligned} 4. \square RSTU &= \triangle RST + \triangle RTU \\ &= \left(\frac{1}{2} \times 17 \times 8\right) + \left(\frac{1}{2} \times 17 \times 8\right) \\ &= 68 + 68 \\ &= 136 \end{aligned}$$

So, the area of $\square RSTU$ is 136 m^2 .

$$\begin{aligned} 6. \square BGTR &= \triangle BGR + \triangle RGT \\ &= \left(\frac{1}{2} \times 38 \times 8\right) + \left(\frac{1}{2} \times 38 \times 8\right) \\ &= 152 + 152 \\ &= 304 \end{aligned}$$

So, the area of $\square BGTR$ is 304 mm^2 .

$$\begin{aligned} 8. \square VFRE &= \triangle VFR + \triangle VRE \\ &= \left(\frac{1}{2} \times 42 \times 6\right) + \left(\frac{1}{2} \times 42 \times 10\right) \\ &= 126 + 210 \\ &= 336 \end{aligned}$$

So, the area of $\square VFRE$ is 336 ft^2 .

$$\begin{aligned} 10. \square NPFS &= \triangle NPF + \triangle NFS \\ &= \left(\frac{1}{2} \times 54 \times 18\right) + \left(\frac{1}{2} \times 54 \times 28\right) \\ &= 486 + 756 \\ &= 1,242 \end{aligned}$$

So, the area of $\square NPFS$ is $1,242 \text{ mm}^2$.



Chapter 6 Parallels line

- | | | | | |
|--------|--------|--------|--------|--------|
| 1. d. | 2. d. | 3. c. | 4. b. | 5. a. |
| 6. a. | 7. d. | 8. b. | 9. d. | 10. c. |
| 11. d. | 12. c. | 13. c. | 14. b. | 15. a. |
| 16. d. | 17. d. | 18. b. | 19. a. | 20. c. |



Chapter 7 Equation and Solving equation

- | | | | | |
|--------|--------|--------|--------|--------|
| 1. b. | 2. d. | 3. d. | 4. a. | 5. b. |
| 6. b. | 7. c. | 8. b. | 9. d. | 10. a. |
| 11. d. | 12. a. | 13. c. | 14. c. | 15. b. |
| 16. d. | 17. d. | 18. d. | 19. a. | 20. b. |



Chapter 8 Quadrilateral

- | | | | | |
|--------|--------|--------|--------|--------|
| 1. a. | 2. d. | 3. a. | 4. c. | 5. b. |
| 6. b. | 7. d. | 8. c. | 9. a. | 10. c. |
| 11. a. | 12. c. | 13. b. | 14. d. | 15. a. |
| 16. d. | 17. d. | 18. c. | 19. c. | 20. b. |



Chapter 9 Circle

- | | | | | |
|--------|--------|--------|--------|--------|
| 1. c. | 2. d. | 3. a. | 4. b. | 5. a. |
| 6. a. | 7. b. | 8. d. | 9. a. | 10. c. |
| 11. c. | 12. c. | 13. a. | 14. d. | 15. b. |
| 16. b. | 17. a. | 18. c. | 19. d. | 20. b. |



Chapter 10 Triangles

- | | | | | |
|--------|--------|--------|--------|--------|
| 1. a. | 2. b. | 3. d. | 4. d. | 5. c. |
| 6. a. | 7. d. | 8. c. | 9. a. | 10. c. |
| 11. b. | 12. a. | 13. c. | 14. d. | 15. d. |
| 16. b. | 17. a. | 18. c. | 19. b. | 20. d. |



Chapter 11 3-Dimensional geometry and Volume of rectangle prism

- | | | | | |
|--------|--------|--------|--------|--------|
| 1. b. | 2. b. | 3. d. | 4. a. | 5. c. |
| 6. d. | 7. d. | 8. c. | 9. a. | 10. b. |
| 11. a. | 12. d. | 13. d. | 14. b. | 15. b. |
| 16. c. | 17. a. | 18. c. | 19. c. | 20. c. |