1. Construct a quadrilateral ABCD in which $\mathrm{AB}=\mathrm{AD}=3.1 \mathrm{~cm}, \mathrm{BC}=2.6 \mathrm{~cm}$. $\mathrm{AC}=4 \mathrm{~cm}$ and BD $=5 \mathrm{~cm}$.
2. Construct a quadrilateral LMNO in which $\mathrm{LM}=4 \mathrm{~cm}, \mathrm{MN} 5.8 \mathrm{~cm}, \mathrm{NO}=5 \mathrm{~cm} .0 \mathrm{~L}=4.8 \mathrm{~cm}$ and $\mathrm{LN}=7.8 \mathrm{~cm}$.
3. Construct a quadrilateral ABCD in which $\mathrm{AB}=3.7 \mathrm{~cm}, \mathrm{BC} 3.4 \mathrm{~cm}, \mathrm{AD}=2.8 \mathrm{~cm}$, diagonal AC $=4.7 \mathrm{~cm}$ and diagonal $\mathrm{BD}=4.2 \mathrm{~cm}$.
4. Construct a quadrilateral PORS in which $\mathrm{PR}=\mathrm{PS}=6 \mathrm{~cm}, \mathrm{OR}=7.5 \mathrm{~cm}, \mathrm{RS}=5 \mathrm{~cm}$ and QS 10 cm.
5. Construct a quadrilateral ABCD in which $\mathrm{AB}=\mathrm{BC}=3.7 \mathrm{~cm}, \mathrm{AD}=\mathrm{CD} 5.2 \mathrm{~cm}$ and $\angle \mathrm{ABC}=$ $120^{\circ}$.
6. Construct a quadrilateral ABCD in which $\mathrm{AB}=3 \mathrm{~cm}, \mathrm{BC}=3.4 \mathrm{~cm}, \mathrm{CD}=2.9 \mathrm{~cm}, \mathrm{DA}=3.6 \mathrm{~cm}$ and $\angle A=75^{\circ}$.
7. Construct a quadrilateral CDEF in which $\mathrm{CD}=3.5 \mathrm{~cm}, \mathrm{DE}=5 \mathrm{~cm}, \mathrm{EF}=4.6 \mathrm{~cm} . \angle \mathrm{C}=125^{\circ}$ and $\angle \mathrm{D}=60^{\circ}$.
8. Construct a quadrilateral LMNO in which $\mathrm{LM}=6.2 \mathrm{~cm}, \mathrm{MN}=5.8 \mathrm{~cm}$. $\mathrm{NO}=2.9 \mathrm{~cm}, \angle \mathrm{M}=$ $45^{\circ}$ and $\angle \mathrm{N}=90^{\circ}$.
9. Construct a quadrilateral ABCD in which $\mathrm{AB}=3.5 \mathrm{~cm}, \mathrm{BC}=6.5 \mathrm{~cm}$, and its 3 angles $\angle \mathrm{A}$ $=75^{\circ}, \angle B=105^{\circ}$ and $\angle \mathrm{C}=110^{\circ}$.
10. Construct a quadrilateral $P O R S$ in which $P Q=3.8 \mathrm{~cm}, Q R=6.8 \mathrm{~cm}$, and 3 angles $\angle P=100^{\circ}$, $\angle \mathrm{R}=110^{\circ}$ and $\angle \mathrm{S} 75^{\circ}$

## MATHEMATICS

CLASS $8^{\text {TH }}$

1. Construct a rectangle ASCD with $\mathrm{AB}=6.3 \mathrm{~cm}$ and $\mathrm{BC}=4.4 \mathrm{~cm}$.
2. Construct a rectangle ABCD with $\mathrm{AC}=8.4 \mathrm{~cm}$ and AB 6.2 cm
3. Construct a square with the length of the diagonal 7.4 cm .
4. Construct a rhombus with side 4.8 cm and one diagonal 8 cm .
5. Construct a parallelogram $P Q R S$ in which $P Q=4 \mathrm{~cm}, \mathrm{QR} 5.5 \mathrm{~cm}$ and $\angle P 70^{\circ}$.
6. Construct a parallelogram ABCD in which $\mathrm{AB}=3.5 \mathrm{~cm}, \mathrm{BC}=4 \mathrm{~cm}$ and $\mathrm{AC}=6.5 \mathrm{~cm}$.
7. Construct a trapezium $A B C D$ in which $A B=6 \mathrm{~cm}, \mathrm{BC}=4 \mathrm{~cm}$. $\mathrm{CD}=3.2 \mathrm{~cm}, \angle \mathrm{~B} 75^{\circ}$ and DC\|AB.
8. Construct a rhombus when the length measures of the diagonals are 4.8 cm and 6.4 cm .
9. Construct a square with the length of the diagonal 5.8 cm .
10. Construct a trapezium PORS in which $P O \| S R, P O=6.8 \mathrm{~cm} . Q R=4.8 \mathrm{~cm} P S=6.3 \mathrm{~cm}$ and $\angle Q=60$ 。
11. Fill in the blanks.
a) A unique quadrilateral can be constructed, If $\qquad$ elements are given.
b) The sum of the angles of a quadrilateral =. $\qquad$
c) In a parallelogram, the consecutive angles are $\qquad$ ..
d) All sides of a rhombus are $\qquad$
e) The angles of a rectangle measure $\qquad$
12. State true or false.
a) Given the length of diagonals we can construct a rhombus.
b) It is possible to construct a quadrilateral with the length of a sides as 7 cm and 6 cm and its angles measuring. $120^{\prime}, 145^{\circ}$ and $150^{\circ}$ :
c) Given three angles and one side we can construct a rhombus.
d) Every parallelogram is a rhombus.
e) All squares are parallelograms. .
13. Construct a rectangle with sides 4 cm and 2 cm .
14. Construct a parallelogram with one side 6 cm and diagonals as 6 cm and 8 cm . (hint: diagonals of a parallelogram bisect each other).
15. Construct a quadrilateral with $\mathrm{AB} 4 \mathrm{~cm}, \mathrm{BC}=5.9 \mathrm{~cm}, \mathrm{CD}=5.2 \mathrm{~cm}, \mathrm{DA}=5.5 \mathrm{~cm}$ and diagonal AC 7.5 cm .
16. Construct a parallelogram $\mathrm{ABCD}, \mathrm{AB}=8 \mathrm{~cm}, \mathrm{BC}=5 \mathrm{~cm}, \angle \mathrm{~A}=70^{\circ}, \angle \mathrm{B}=110^{\circ}$.
