Dear Parents / Students

Due to the unprecedented situation, Knowledgeplus Training center is mobilized and will keep accompanying and supporting our students through this difficult time. Our Staff will be continuously, sending notes and exercises on a weekly basis through what's app and email. Students are requested to copy the notes and do the exercises on their copybooks. The answers to the questions below will be made available on our website on knowledgeplus.mu/support.php. Please note that these are extra work and notes that we are providing our students and all classes will be replaced during the winter vacation. We thank you for your trust and are convinced that, together, we will overcome these troubled times.

Knowledgeplus Training Center

Mathematics

Garde 7

Week 6

Notes and Exercise

Note:(All the Notes, Examples and Exercise are on the photos and Note:(Please copy all the Notes, Examples and Exercises on your copy book).

Mathematics Grade 7 Week 6

Word problems involving decimals

Example.

Ali bought 6 Copybooks for Rs 97.20

(a) Find the cost of 1 Copybook

(b) A discount of Rs 1 was given per copybook when buying a pack of 12 Copybooks.

Solution

(a) 6 Copybooks cost = Rs 97.20

1 Copybooks cost = Rs $\dfrac{97.20}{6}$

= Rs 16.20

(b) Discount price of 1 copybook = Rs 16.20 - Rs 1

= Rs 15.20

12 Copybooks cost = Rs 15.20 × 12

= Rs 182.40

∴ Price of 1 pack = Rs 182.40.

Attempt:Ex 1, 2, 3.

1. Ashwinee bought 15 party hats at Rs 12.50 each and 15 balloons at Rs 7.50 each. How much money did she spend?

2. Ali is 0.85 m taller than Anish while Anju is 0.5 m shorter than Anish. If the total height of the three children is 3.05 m, find the height of each child.

3. A pen and a copybook cost Rs 27.50 together. Deven bought 8 copybooks and 5 pens for Rs 182.50. Find the price Sushila paid for 2 copybooks and 3 pens.

Angles

Introduction

Points, lines, line segment, rays and planes

A point has no dimensions. It is usually denoted by a dot and is used to specify a location. A capital letter is used to indicate a point. For example the point y (•Y)

Lines line segments and rays have one dimensions.

A line has no end points. Thus, we represent a line by including arrows at both ends to indicate that the line continues endlessly in both directions

line

A line segment starts with a point and ends with another point. We can draw and measure line segments as they have definite lengths. A line segment is part of a line.

For example line segment AB

line segment

A •————————————• B
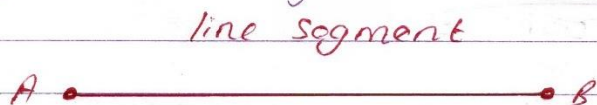
A ray is a half-line and is also part of a line. It starts at a spspecific, say A and continues endlessly in one direction only.

or ray.

A

or
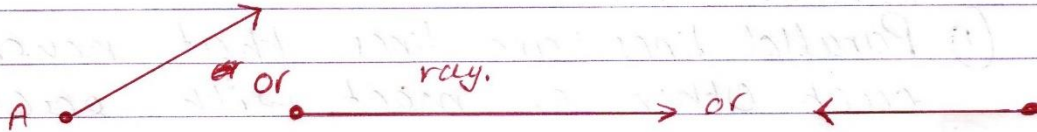
A plane has length and width but not height. It start at a specific point, say A and continues endles

A plane has lenght and width but no height. It is a flat surface with two dimensions, for example a plane is the surface of a table.
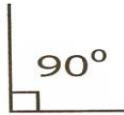
→ the surface of a table.
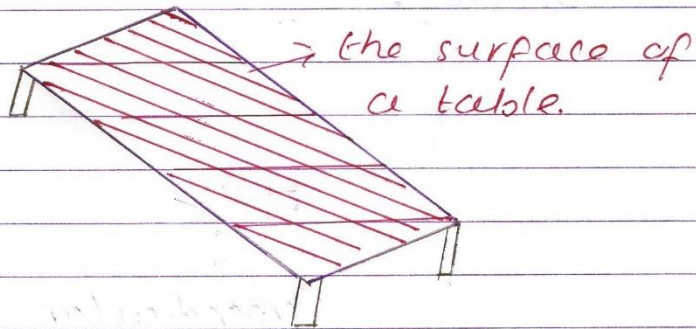
Angles
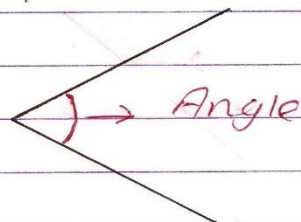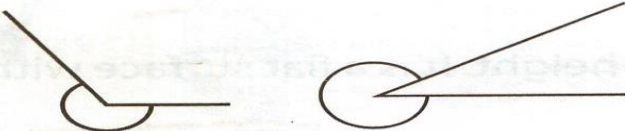
⟩ → Angle

Attempt:Ex 2(a-e).

2. Represent the following on a sheet of paper:
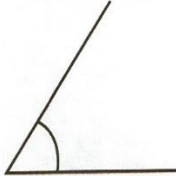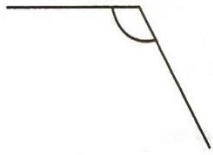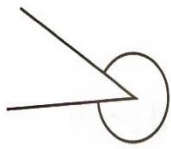
(a) A point P
(b) A line segment XY
(c) A ray starting at Z
(d) A plane
(e) A line

Types of angle

An angle of 180° is called a straight angle.	180°
A right angle is an angle of 90°.	90°
An acute angle is an angle less than 90°.	
An obtuse angle is an angle between 90° and 180°.	
Angles of more than 180° but less than 360° are called reflex angles.	
A complete turn makes an angle of 360°.	360°

Attempt:Ex1(a-f), Ex2(a-c), Ex3(a-h).

1. For each of these angles, identify whether it is acute, obtuse, reflex or right-angled.

(a)	(b)	(c)
(d)	(e)	(f)

2. Represent the following in your copybook.

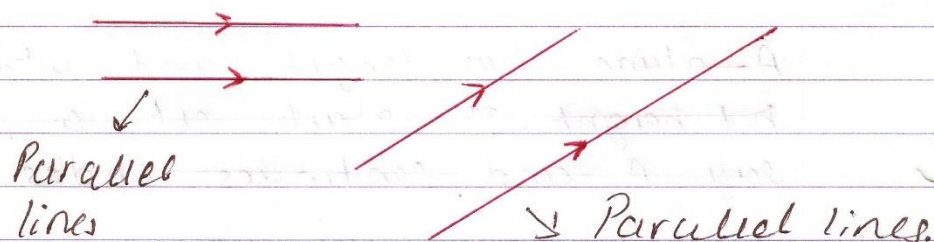(a) An acute angle   (b) An obtuse angle   (c) A reflex angle

3. State the type of angle for each of the following angles:

(a) 160^0 (b) 12^0 (c) 321^0 (d) 90^0 (e) 180^0 (f) 256^0 (g) 190^0 (h) 360^0

Types of lines
Parallel lines
(1) Parallel lines are lines that never touch each other or meet with each other.

Parallel
lines

↘ Parallel lines.

Perpendicular lines
Perpendicular lines are line meet or cross each other to make an angle of 90°.

90°   90°

Perpendicular   Perpendicular
line   lines
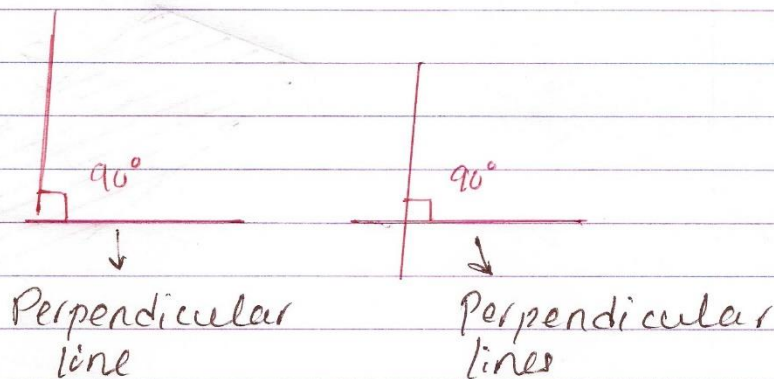
Transversals line
It is a line that intersect a parallel line
                              ↷ transversal.

Attempt:Ex1(a-c), Ex2(a-b), Ex3(a-b).

1. Draw on different diagrams
   (a) a pair of parallel lines,
   (b) two lines which are perpendicular to each other,
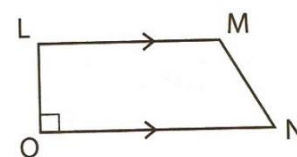   (c) a pair of parallel lines and a transversal.

2. ABCD is a rectangle.
   (a) Which side is parallel to AB?
   (b) Which side(s) is/are perpendicular to AD?
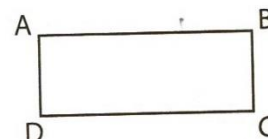
3. LMNO is a trapezium.
   (a) Which side is parallel to LM?
   (b) Which side(s) is/are perpendicular to LO?

Complementary Angles

Complementary Angles ~~has~~ form a right angle and have a sum of $90°$

Supplementary Angles

Supplementary Angles form a straight angle ~~al~~ and have a sum of $180°$

Angles at a point

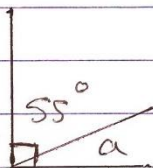The sum of the angles at a point is $360°$

$$a + b + c + d + e = 360°$$
$$a + b + c + d = 360°$$
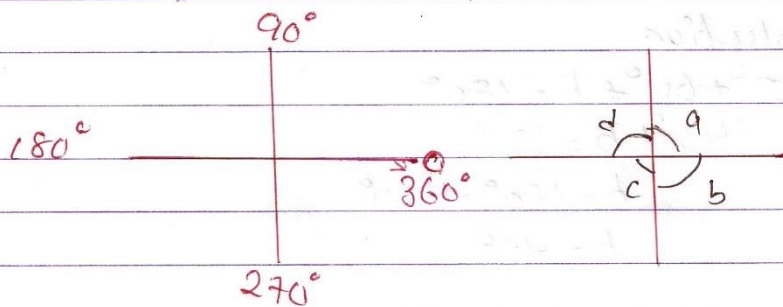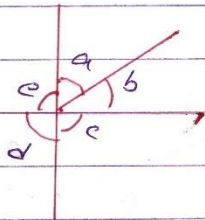
Example

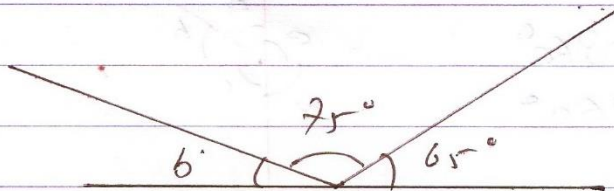Workout the size of the unknown angles. Justify each answer.

(a)

<u>Solution</u>

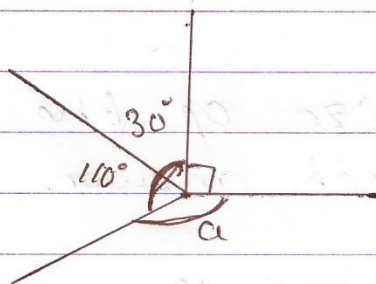$$55° + a = 90°$$
$$a = 90° - 55°$$
$$a = 35°$$

(b)

Solution

$75° + 65° + b = 180°$

$140° + b = 180°$

$b = 180° - 140°$

$b = 40°$

(c)

Solution

$30° + 110° + 90° + a = 360°$

$230° + a = 360°$
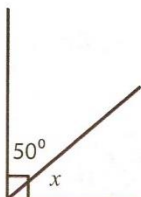
$a = 360° - 230°$

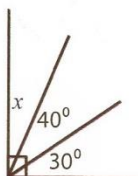$a = 130°$

Attempt:Ex3(a-c), Ex4(a-c), Ex5 (a-b), Ex6(a-b).

3. Calculate the angle marked x in each of the following diagrams.
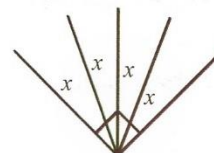
(a)   (b)   (c)
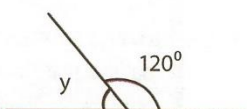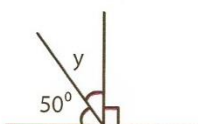

4. Calculate angle y in each of the following cases.
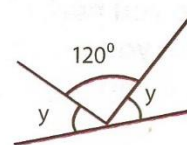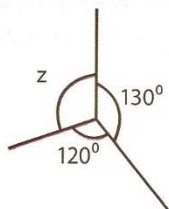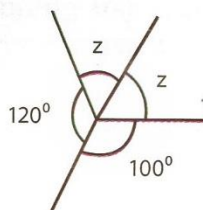
(a)   (b)   (c)

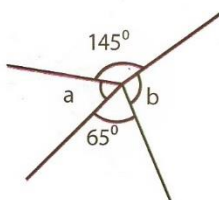5. Calculate angle z in each of the following cases.

(a)   (b)

6. (a) Given angle b is twice angle a, find a and b.   (b) Find angle c.