

# Need an amazing tutor?

[www.teachme2.com/matric](http://www.teachme2.com/matric)



Collected and collated by

**teachme2**



# basic education

Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**ENGINEERING GRAPHICS AND DESIGN P1**

**NOVEMBER 2022**

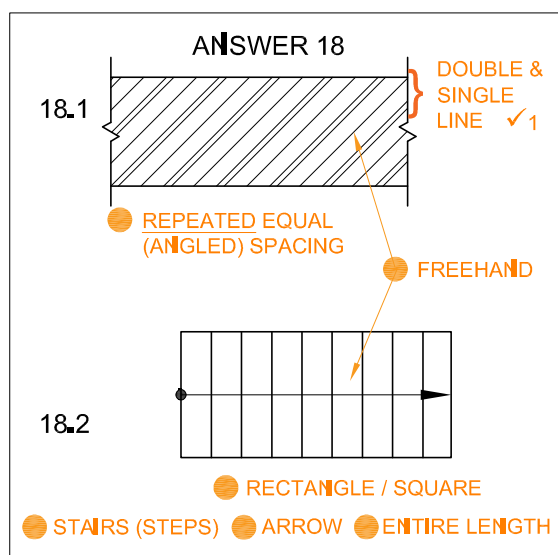
**MARKING GUIDELINES**

**MARKS: 100**

**These marking guidelines consist of 8 pages.**

## ANSWERS

1	PROJECT NUMBER	1
2	MR N KEENAN	1
3	SITE PLAN	1
4	PRINTING	1
5	LISA B	1
6	15000	1
7	ARCHITECT and CLIENT / MR N KEENAN	2
8	2	1
9	RAINWATER DOWN-PIPE	1
10	E / SOUTH / TOP LEFT	1
11	4,57	1
12	NEW ✓ IRON / STEEL ✓	2
13	NORTH POINT	1
14	SWING / OPENING OF THE GATES	1
15	WATT METER / ELECTRICAL METER	1
16	FALL / GRADIENT / SLOPE / DROP	1
17	SOUTH WEST / SW	2
18	See below	4
19		3
20		3
	TOTAL	30



### ANSWER 19

Show ALL calculations.  
APPLYING CORRECT FORMULA ✓

$$P = AB + BC + CD + DE$$

$$\begin{aligned}
 &= AB + BC + CD + DE (- \text{GATE}) \\
 &= (24,23 + 8,37 + 18,38 + 31,2) - 3,6 \\
 &= 78,58 \quad \text{ANSWER IN METRES} \quad \checkmark
 \end{aligned}$$

### ANSWER 20

Show ALL calculations.  
APPLYING CORRECT FORMULA ✓

$$A = L \times B$$

$$\begin{aligned}
 &= (10,8 \times 6) + (13,2 \times 6) + (6,7 \times 6,7) \\
 &= 64,8 + 79,2 + 44,89 \\
 &= 188,89 \quad \text{m}^2 \quad \checkmark
 \end{aligned}$$

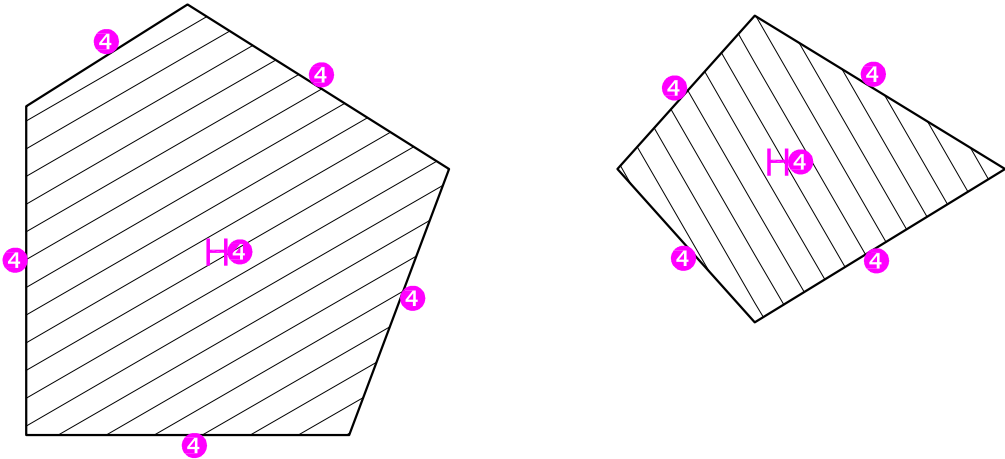
ANSWER IN SQUARE METRES AND m<sup>2</sup> SHOWN ✓

PAPER 1 QUESTION 2  
GRADE 12  
NOVEMBER 2022  
MARKING GUIDELINES

Turn over for true shape

**CONSTRUCTION**  
SIZE 37 mm ✓2  
SHAPE 72° ✓2

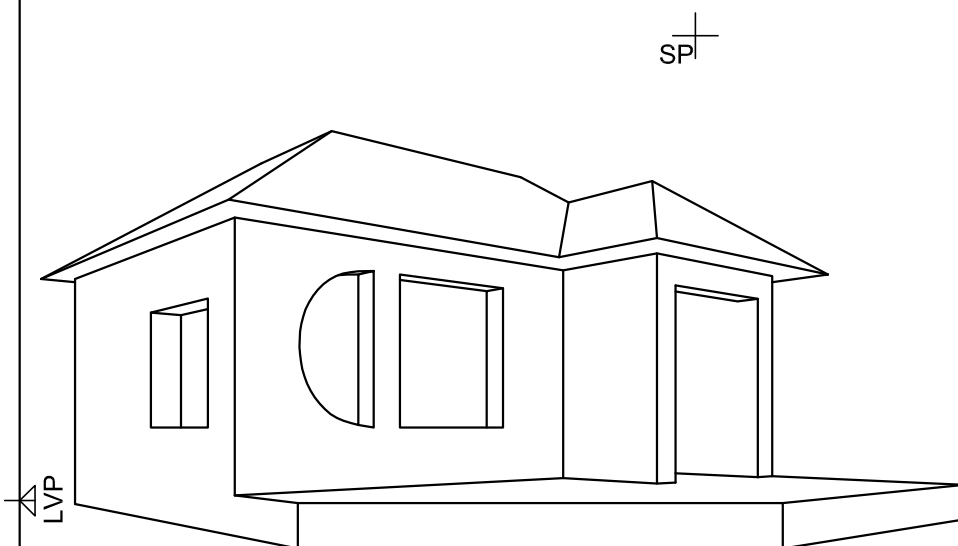
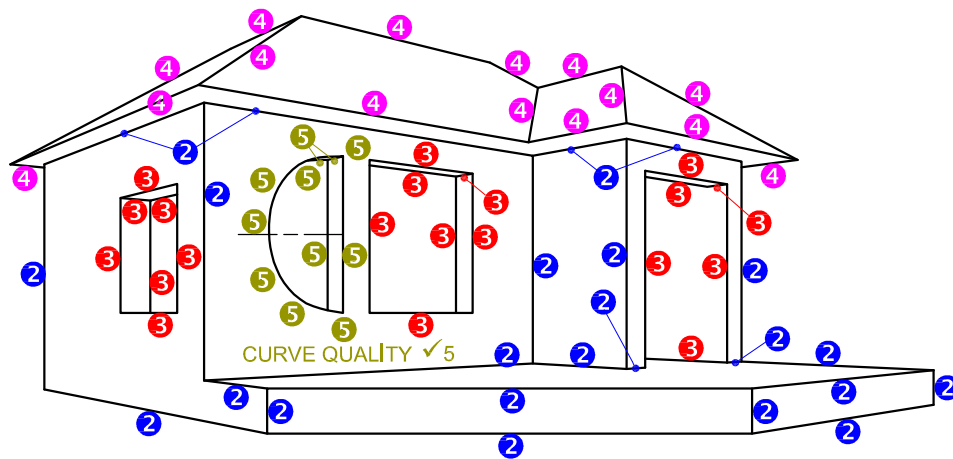
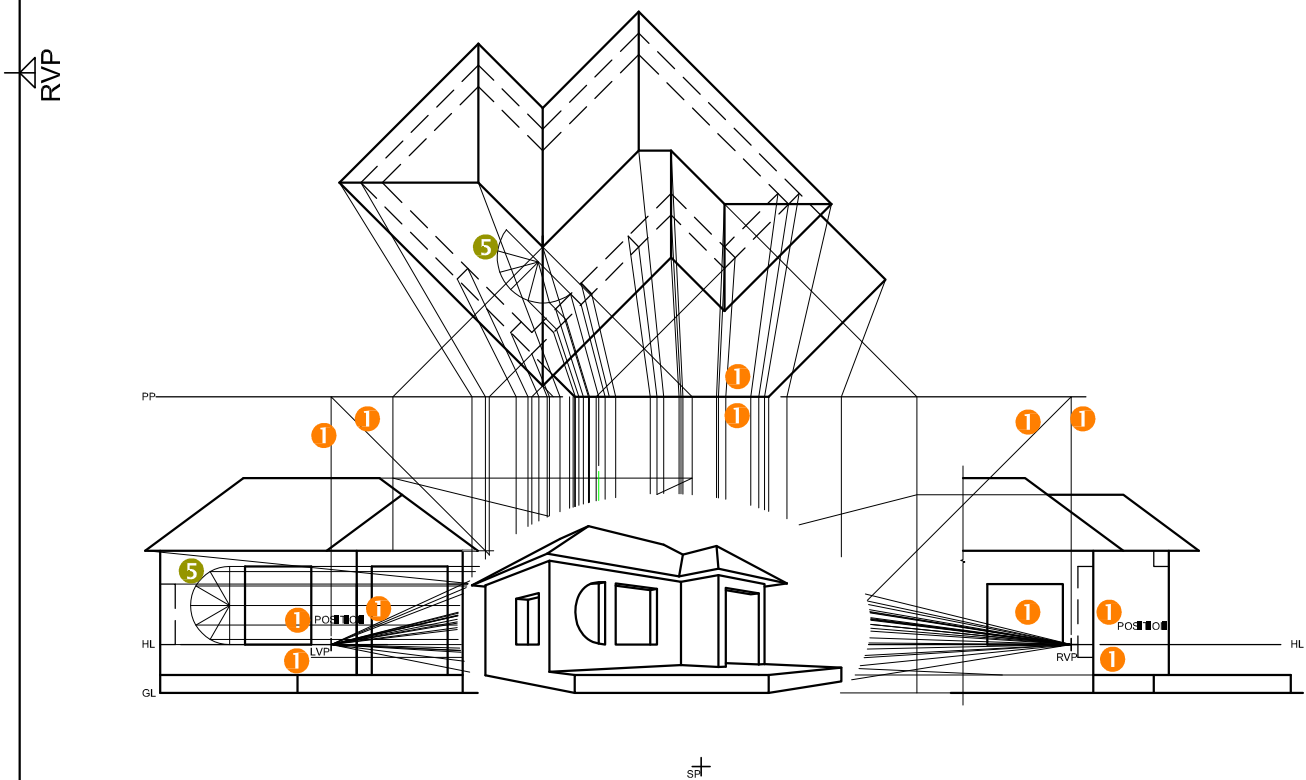
TRUE SHAPE  
ANY RECOGNISED METHOD ✓ 4



5. NOTE ON CORRECT HATCHING  
DIFFERENT DIRECTIONS ✓ 5

ASSESSMENT CRITERIA		
4	TRUE SHAPE	6 <sup>1</sup> / <sub>2</sub>
5	CORRECT HATCHING	1
SUBTOTAL		7 <sup>1</sup> / <sub>2</sub>

PAPER 1 QUESTION 2  
GRADE 12  
NOVEMBER 2022  
MARKING GUIDELINES



ASSESSMENT CRITERIA		
1	CONSTRUCTION	6
2	WALL + BASE	10 $\frac{1}{2}$
3	WINDOWS + OPENING	10
4	ROOF	7 $\frac{1}{2}$
5	ARC	7
TOTAL		41

PAPER 1 QUESTION 3  
 GRADE 12  
 NOVEMBER 2022  
 MARKING GUIDELINES

**FLOOR PLAN**  
SCALE 1 : 50

**4. HATCHING ALLOCATION**  
SANS COMPLIANT (TYPE) 1  
HATCHING CORRECTLY APPLIED 2  
TOTAL 3

**DETAIL OF MARK ALLOCATION FOR A WINDOW (2 x 3 windows = 6)**

**DETAIL OF MARK ALLOCATION FOR A DOOR (1 x 5 doors = 5)**

**ROOMS AND FLOOR COVERINGS:**

- KITCHEN** TILES 5
- STUDY** CARPET 5
- BATHROOM** TILES 5
- LAUNDRY** TILES 5
- BEDROOM** CARPET 5
- LIVING ROOM** WOOD 5

**HATCHING ALLOCATION NUMBERS:**

- 1: Windows (2 x 3 windows = 6)
- 2: Walls, Ceilings, Floors (various areas)
- 3: Doors (1 x 5 doors = 5)

**Other Labels:**

- ROOF LINE
- RWDP
- A

FLOOR PLAN  
SCALE 1 : 50

Please turn over

HEIGHT @ 60 mm

GL

FFL

SOUTH ELEVATION

ASSESSMENT CRITERIA	
SOUTH ELEVATION	
1	ROOF + RWDP 8 $\frac{1}{2}$
2	WALLS + STEP + CHIMNEY + FFL 7
3	DOOR + WINDOW 7
4	LABELS 1
SUBTOTAL 23 $\frac{1}{2}$	

**1. MARK ALLOCATION FOR ROOF**

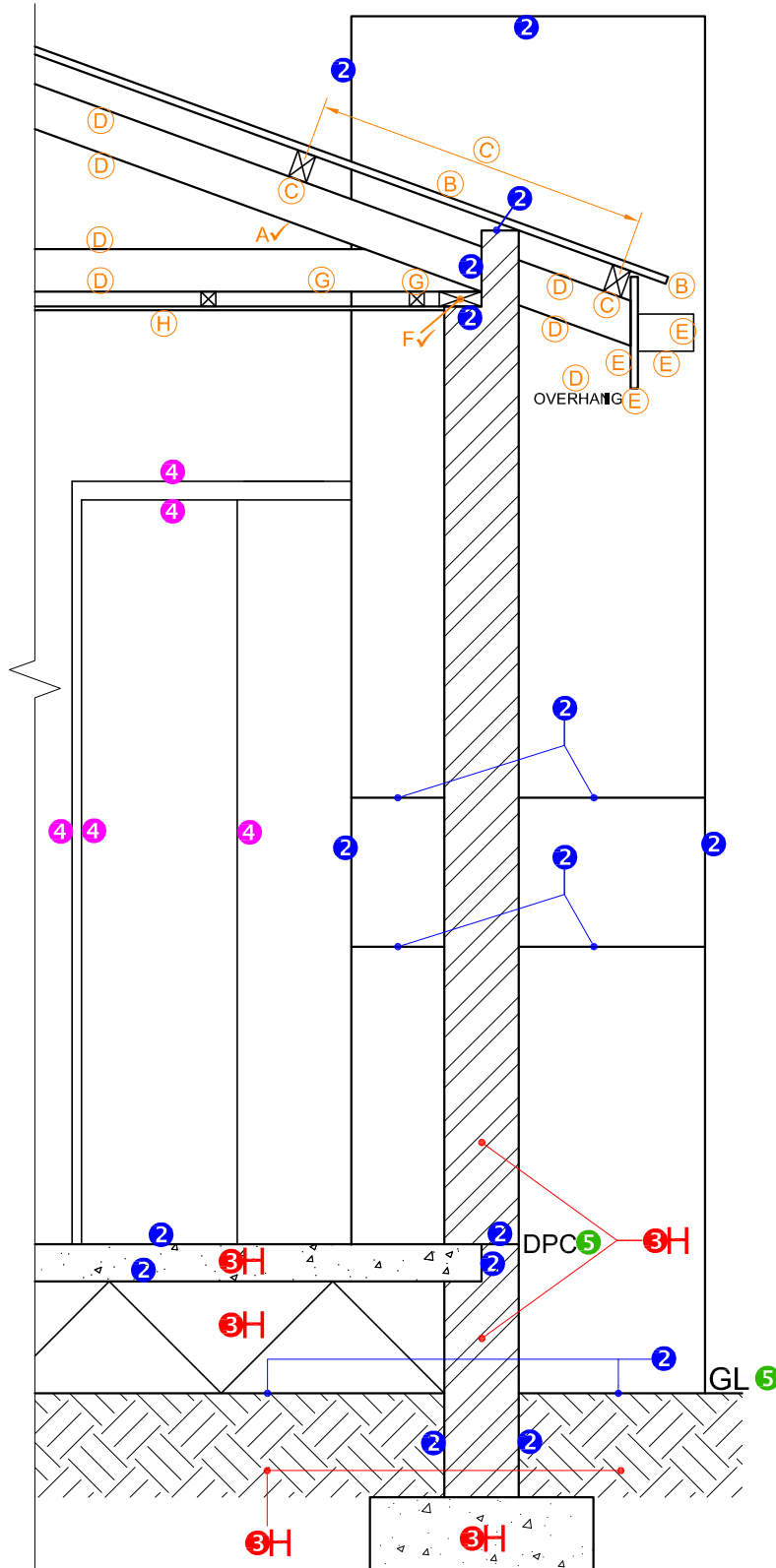
A: ROOF ANGLE	1
B: ROOF SHEET	1
C: PURLIN + SPACING	1,5
D: TRUSS + OVERHANG	3,5
E: FASCIA BOARD + GUTTER	2
F: WALL PLATE	1
G: BRANDING + SPACING	1
H: CEILING BOARD	0,5
<b>TOTAL</b>	<b>11,5</b>

**3. HATCHING FOR ROUGH TIMBER**

SANS COMPLIANT (TYPE) 0,5

HATCHING CORRECTLY  
APPLIED

**TOTAL** 0,5  
**1**



**SECTION A-A**  
**SCALE 1 : 20**

**ASSESSMENT  
CRITERIA****DETAILED SECTION**

1	ROOF DETAIL	11 $\frac{1}{2}$
2	SLAB + WALL + CHIMNEY	8
3	HATCHING	3 $\frac{1}{2}$
4	DOOR	2 $\frac{1}{2}$
5	LABELS	1
<b>SUBTOTAL</b>		<b>26 <math>\frac{1}{2}</math></b>

PAPER 1 QUESTION 4  
GRADE 12  
NOVEMBER 2022  
MARKING GUIDELINE