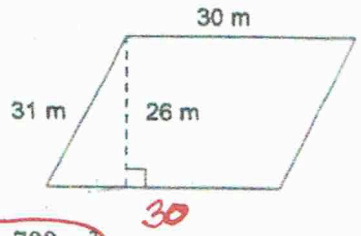
Matemáticas 7D

Respuestas del Quiz - Unidad 4

A 1. Find the area of this parallelogram.

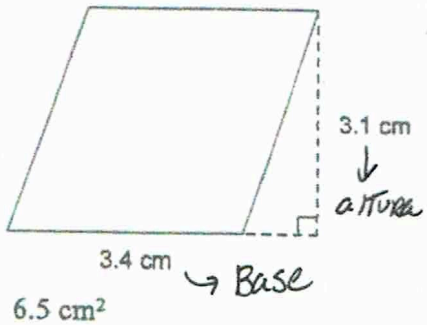


a. 780 m²
b. 112 m²
c. 930 m²
d. 56 m²

• Remember that the base and the height are always perpendicular to each other

• Area = Base × Altura
30 m × 26 m = 780 m²

D 2. Find the area of this parallelogram.



a. 6.5 cm²
b. 0.3 cm²
c. 21.08 cm²
d. 10.54 cm²

• Area = Base × Altura
3.4 cm × 3.1 cm
= 10.54 cm²

A 3. The area of a parallelogram is 32 cm². The height is 5 cm. Find the base.

a. 6.4 cm
b. 10 cm
c. 27 cm
d. 3.2 cm

Area = Base × Altura
32 cm² = Base × 5 cm
So to find the base = 32 cm² / 5 cm
• Since 5×6 = 30 5×7 = 35
Between 6 and 7

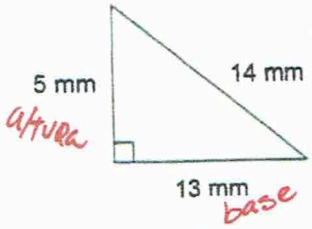
A 4. The area of a parallelogram is 77.9 cm². The base is 9.5 cm. Find the height.

a. 8.2 cm
b. 4.1 cm
c. 68.4 cm
d. 16.4 cm

think about the number that multiplied by 9.5 gives you 77.9

Area = Base × Altura
77.9 cm² = 9.5 cm × A
Altura = 77.9 / 9.5
9×9=81
9×8=72

D 5. Find the area of this right triangle.



a. 227.5 mm²
b. 65 mm²
c. 32 mm²
d. 32.5 mm²

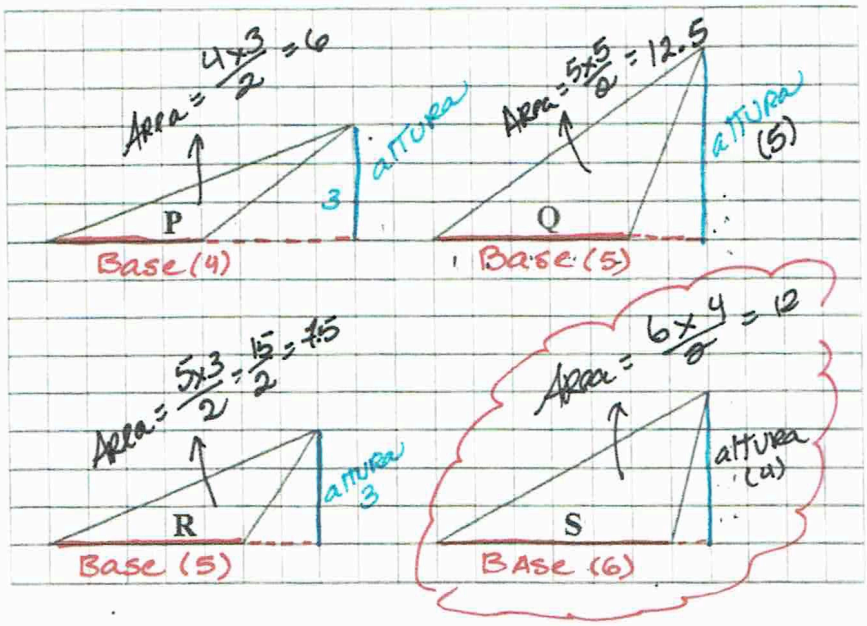
• the Area of a triangle is:

$$A = \frac{b \times a}{2}$$

• $A = \frac{13\text{ mm} \times 5\text{ mm}}{2} = \frac{65\text{ mm}}{2}$

$= 32.5\text{ mm}^2$

S (D) 6. Which triangle has an area of 12 square units?



area triangulo $= \frac{b \times a}{2}$

a. Q
b. P
c. R
d. S

D 7. The area of a triangle is 54 cm². If the base measures 12 cm, what is the height?

a. 4.5 cm
b. 42 cm
c. 18 cm
d. 9 cm

$9 \times 12 = \frac{108}{2} = 54$

$54 = \frac{12 \times ?}{2}$

• we know that 12x? has to be double 54, or 108

so
$108 = 12 \times ?$
(slightly less than 10)

___ 8. A triangle has area 64 m² and height 16 m. What is the length of the base?

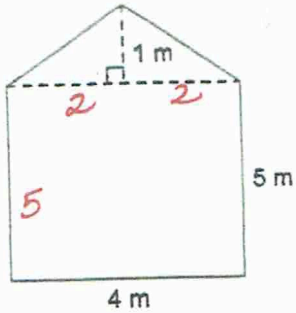
a. 6 m can't be
b. 8 m
c. 16 m can't be
d. 4 m can't be

• $64 = \frac{b \times 16}{2}$

• b×16 has to be 64×2

b×16 = 128

D 9. What is the area of the front of this storage building?



a. 8 m²
b. 24 m²
c. 20 m²
d. 22 m²

Area △ = $\frac{b \times a}{2}$

Area □ = b × a

- This is formed by
  1 Rectangle
  2 equal Triangles

Area Triangulo = $\frac{b \times a}{2} = \frac{2 \times 1}{2} = 1\ m^2$

2nd Triangle = $\frac{2 \times 1}{2} = 1\ m^2$

Area Rectangle = $5 \times 4 = 20\ m^2$

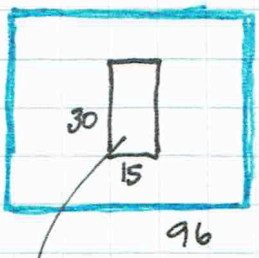
Total Area = $20 + 1 + 1 = 22\ m^2$

Find area

C 10. A rectangular piece of fabric measures 68 cm by 96 cm. A triangular scarf with height 15 cm and base 30 cm is cut from the fabric. How much fabric is left?

Find area — subtract.

a. 6303 cm²
b. 6753 cm²
c. 6078 cm²
d. 6303.5 cm²

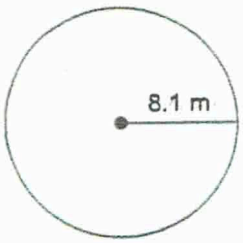


Area of fabric = 96 cm × 68 cm = 6528 cm²

Area = 30 × 15 = 450 cm²

Left over fabric = 6528 cm² − 450 cm² = 6078 cm²

A 11. Find the area of this circle. Leave π in your answer.



- To leave π in the answer means you multiply everything but π.
- Area = $\pi r^2 = \pi (8.1)^2 = 65.61\pi$

a. 65.61π m²
b. 2.85π m²
c. 4.05π m²
d. 131.22π m²

D 12. Find the area of a circle that has diameter 28.9 cm. Round your answer to one decimal place.

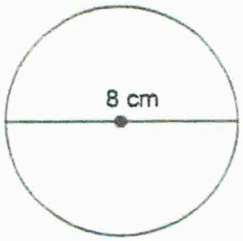
a. 164.0 cm²
b. 2623.9 cm²
c. 90.8 cm²
d. 656.0 cm²

Diameter = 28.9 cm

Radio = $\frac{28.9}{2}$ cm = 14.45 cm

Area = $\pi \cdot r^2 = \pi (14.45)^2 = 655.97$

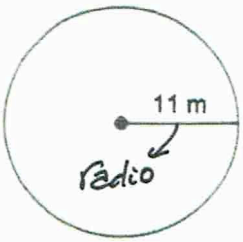
c 13. Find the area of this circle. Leave π in your answer.



Diámetro = 8 cm
Radio = 4 cm
Area = $\pi r^2 = \pi (4)^2 = 16\pi$

a. 4π cm² b. 8π cm² c. 16π cm² d. 64π cm²

c 14. Find the area of this circle. Round your answer to two decimal places.

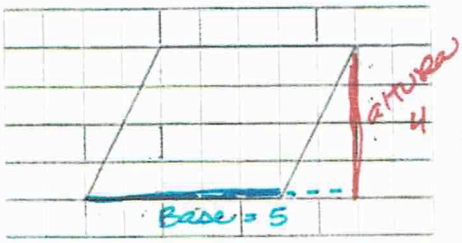


Area = $\pi \cdot r^2$
$= \pi \times (11)^2 \text{ m}^2 = 121\pi \text{ m}^2$
$= 380.13 \text{ m}^2$

a. 69.12 m² b. 34.56 m² c. 380.13 m² d. 1520.53 m²

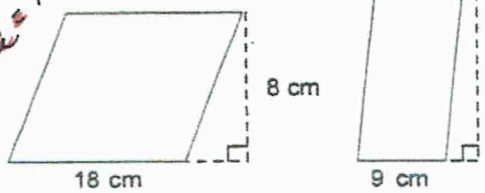
Short Answer

15. Find the base and height of this parallelogram. Find the area. The side length of a small square is 1 unit.



Area = base × altura
$= 5 \times 4$
$= 20 \text{ units}^2$

16. Find the missing height if the parallelograms have the same area.



Area = $18 \times 8 \text{ cm}^2 = 144 \text{ cm}^2$

so
$144 \text{ cm}^2 = 9 \times h$
$h = 16 \text{ cm}$

the height is the number that multiplies 9 to get 144!

18. A large pizza has diameter 36 cm and a medium pizza has diameter 30 cm.
What is the difference in area of the pizzas?
Round your answer to the nearest square centimetre.

Radio large pizza = 18 cm
Radio medium pizza = 15 cm

Area large pizza $= \pi r^2 = \pi(18)^2 = 324\pi$

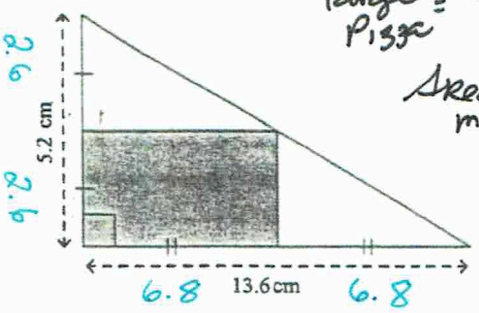
Area medium pizza $= \pi r^2 = \pi(15)^2 = 225\pi$

Diferencia

$324\pi - 225\pi =$
$99\pi =$
311 cm^2

Problem

19.



Find the area of
a) the large triangle
b) the shaded rectangle
c) the unshaded region

a) Area del triangulo grande $= \dfrac{(5.2 \text{ cm}) \times (13.6 \text{ cm})}{2} = \dfrac{70.72 \text{ cm}^2}{2}$

$= 35.36 \text{ cm}^2$

b) Shaded Rectangle $= (6.8 \text{ cm})(2.6 \text{ cm})$

$= 17.68 \text{ cm}^2$

c) Unshaded Region = Area triángulo − Area shaded Rectangle

$= 35.56 \text{ cm}^2 - 17.68 \text{ cm}^2$

$= 17.88 \text{ cm}^2$