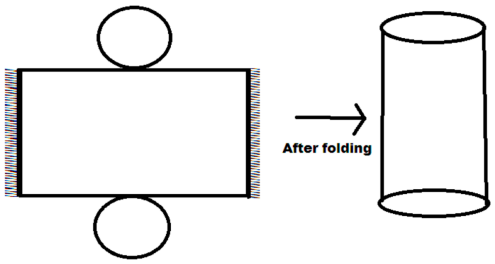
SURFACE AREA: CYLINDERS

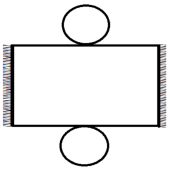
REMEMBER... TO FIND THE SURFACE AREA WE **ADD** ALL AREAS OF ALL FACES.

THE NET OF A CYLINDER →



DOES A CYLINDER HAVE ANY CONGRUENT FACES?

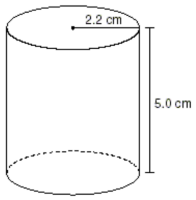
YES! THE BASES OF A CYLINDER ARE CONGRUENT



? HOW DO WE FIND THE LENGTH & WIDTH OF THE RECTANGLE?

KEY FORMULAS → AREA of a CIRCLE πr^2
→ CIRCUMFERENCE πD

CYLINDER

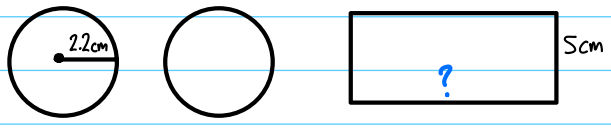


TOTAL FACES? 3 FACES

CONGRUENT FACES? 2 CONGRUENT FACES

CALCULATIONS

• METHOD 1: EACH FACE SEPARATELY



$= \pi r^2$
$= \pi (2.2)^2$
$= \pi \times 4.84$
$= 15.2\,cm^2$

$= 15.2\,cm^2$

Circum $= \pi d$
$= \pi (4.4)$
$= 13.82\,cm$

$A = LW$
$= 13.82 \times 5$
$= 69.1\,cm^2$

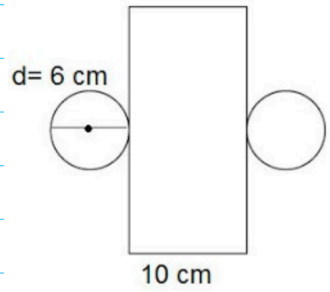
$= 15.2\,cm^2 + 15.2\,cm^2 + 69.1\,cm^2$
$= 99.5\,cm^2$

• METHOD 2: WRITE A FORMULA

$SA = 2A1 + A2$
$= 2(\pi r^2) + (\pi d \times 5)$
$= 2(\pi (2.2)^2) + (\pi (4.4) \times 5)$
$= 2(15.2\,cm^2) + 69.1\,cm^2$
$= 99.5\,cm^2$

CYLINDER

FIND THE SURFACE AREA USING ITS NET.

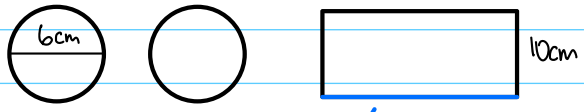


TOTAL FACES? 3 FACES

CONGRUENT FACES? 2 FACES

CALCULATIONS

- METHOD 1: EACH FACE SEPARATELY



$= \pi R^2$
$= \pi (3)^2$
$= \pi (9)$
$= 28.26 cm^2$

$= 28.26 cm^2$

$= \pi d = \pi \times 6$
$= 18.84 cm$

$A = BH$
$= 18.84 \times 10$
$= 188.4 cm^2$

$= 28.26 cm^2 + 28.26 cm^2 + 188.4 cm^2$

$= 244.56 cm^2$

- METHOD 2: WRITE A FORMULA

$= 2\pi R^2 + 10(\pi D)$
$= 2(\pi (3)^2) + 10(\pi \times 6)$
$= 2(28.26) + 10(18.84)$
$= 56.52 + 188.4$
$= 244.56 cm^2$

$2(28.26) + 18.84 = 75.36 cm^2$