

A Cartesian plane: Plotting cubic equations

Skill 5.10

Generate a set of points for these cubics and plot them on a set of axes:

1 $y = \frac{1}{2}x^3 - 4$

x	-2	-1	0	1	2
y					

2 $y = 1 + x - x^3$

x	-2	-1	0	1	2
y					

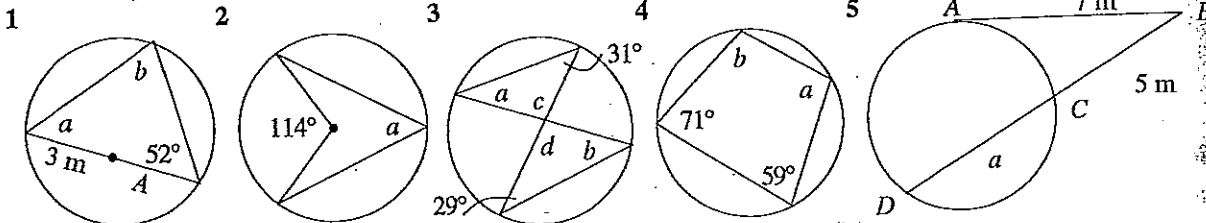
3 $y = 2x^3 - 5x$

x	-2	-1	0	1	2
y					

B Geometry: Properties of circles

Skill 6.3

Find the missing sides or angles:



C Geometry: Symmetrical properties of plane shapes

Skill 6.4

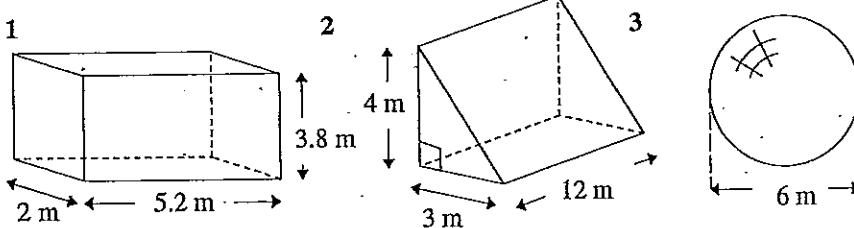
- List the first ten letters of the alphabet and show any axes of symmetry
- Identify the angle through which these shapes need to be rotated to show that they have rotational symmetry. Which of these have point symmetry?



D Measurement: Surface area of solids

Skill 7.7

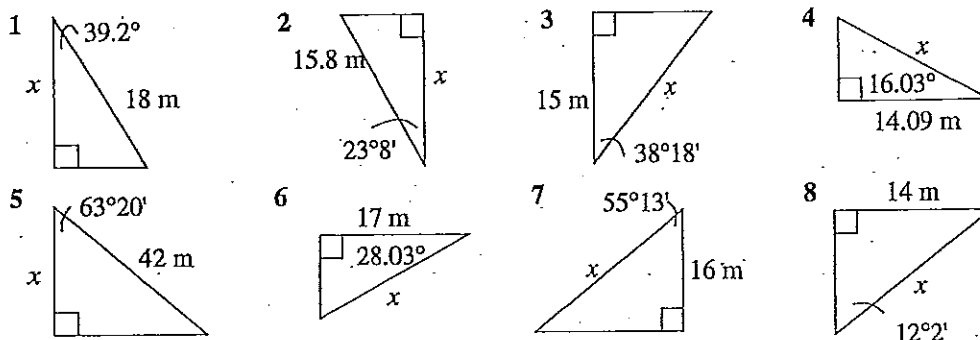
Find the total surface area of these solids:



E Trigonometry: Using cos to find side lengths

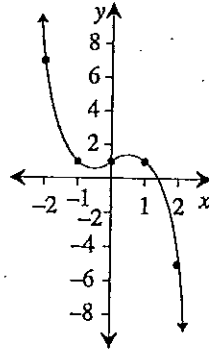
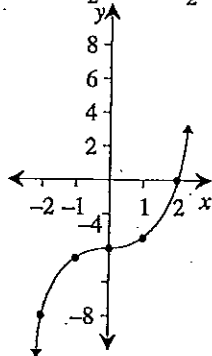
Skill 8.2

Find the missing lengths:

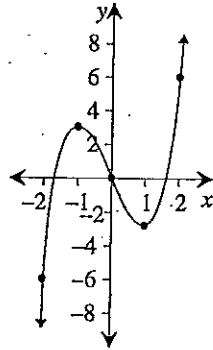


Worksheet 24

A 1 $(-8, -4\frac{1}{2}, -4, -3\frac{1}{2}, 0)$ 2 $(7, 1, 1, 1, -5)$



3 $(-6, 3, 0, -3, 6)$

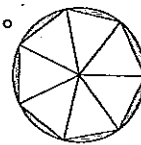


B 1 $a = 38^\circ$ 2 $a = 57^\circ$
 $b = 90^\circ$
 $A = 3 \text{ m}$
 3 $a = 29^\circ$ 4 $a = 109^\circ$
 $b = 31^\circ$ $b = 121^\circ$
 $c = d = 120^\circ$
 5 $A = 9.8 \text{ m}$

C 1 **ABCDEFGHIJ**



2 (a) 180° point symmetry (b) $51\frac{3}{7}^\circ$



(c) 180° point symmetry

D 1 75.52 m^2 2 96 m^2 3 113.10 m^2
 E 1 13.95 m 2 14.53 m 3 19.11 m
 4 14.66 m 5 18.85 m 6 19.26 m
 7 28.05 m 8 14.31 m