40 Drawing graphs – 1

Label the following graphs using the letters shown below.

Choose from:

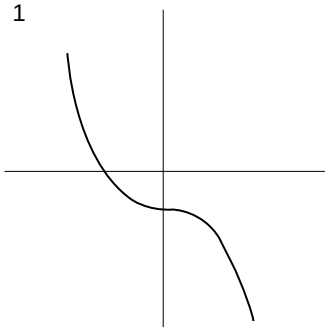
a $y = 2x + 1$ b $y = -2x + 1$ c $y = -2x - 1$ d $y = 2x - 1$ e $y = 2x$

f $y = 2x^2 + 1$ g $y = -2x^2 + 1$ h $y = 2x^2 - 1$ i $y = -2x^2 - 1$ j $y = -2x$

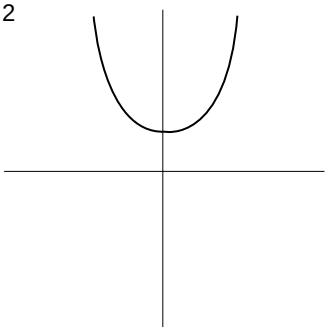
k $y = x^3 + 1$ l $y = -x^3 + 1$ m $y = x^3 - 1$ n $y = -x^3 - 1$ o $y = x^3$

p $y = {}^{-1}/_{x}$ q $y = {}^{1}/_{x}$

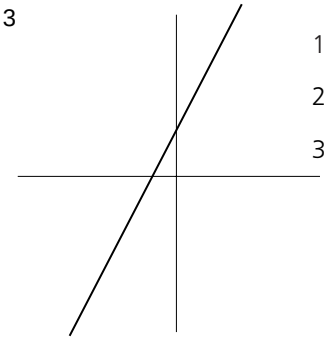
1



2



3

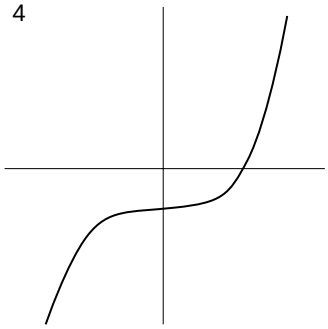


1..... ☐

2..... ☐

3..... ☐

4



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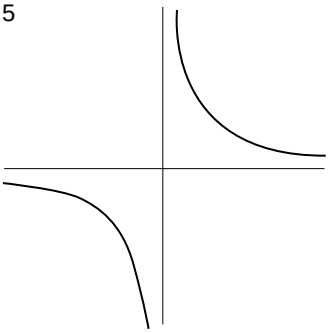

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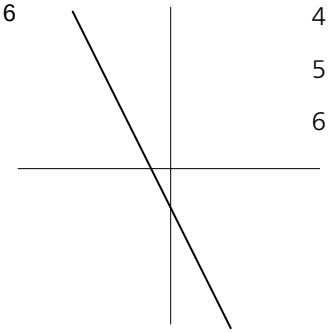
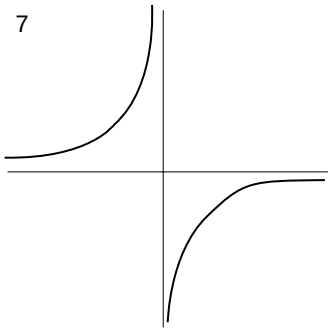


4..... ☐

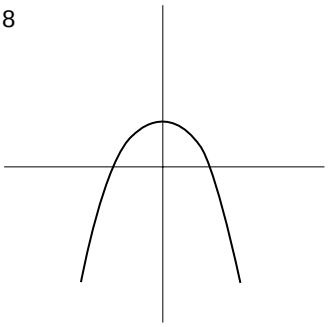
5..... ☐

6..... ☐

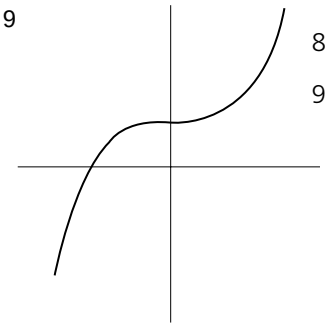
7



8



9



7..... ☐

8..... ☐

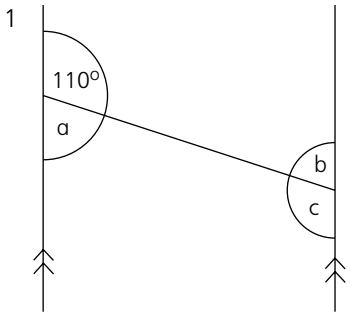
9..... ☐

9

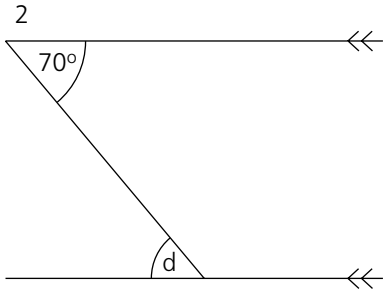
46 Intersecting and parallel lines

Find the missing angles in these diagrams:

1



2



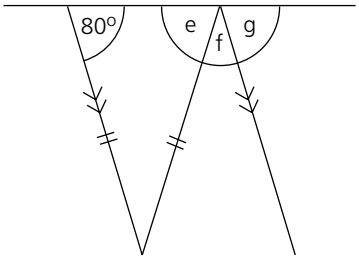
1 a = ... ☐

b =..... ☐

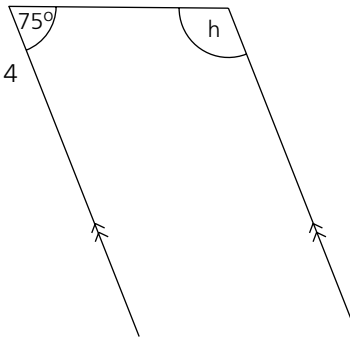
c =..... ☐

2 d = ... ☐

3



4



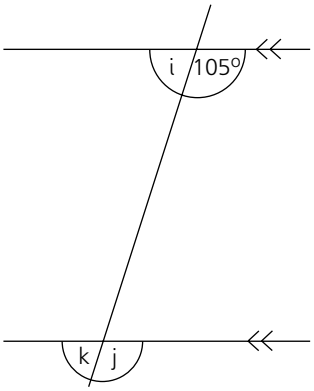
3 e =..... ☐

f = ... ☐

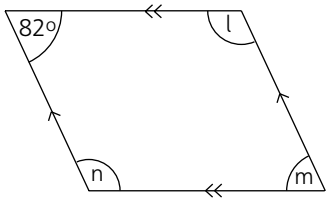
g = ... ☐

4 h =..... ☐

5



6



5 i =..... ☐

j =..... ☐

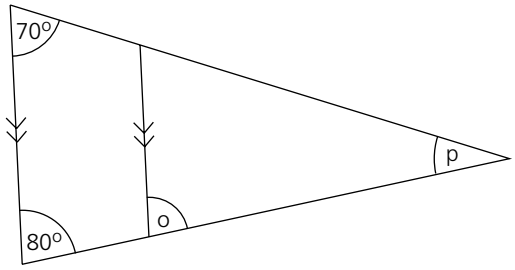
k =..... ☐

6 l =..... ☐

m =..... ☐

n =..... ☐

7



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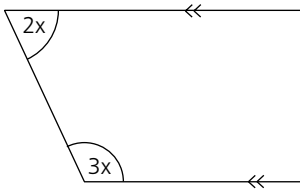


7 o =..... ☐

p =..... ☐

8 2x =..... ☐

3x =..... ☐

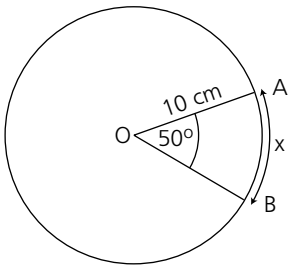
18

62 Length, area and volume of shapes with curves

O is the centre of each circle.

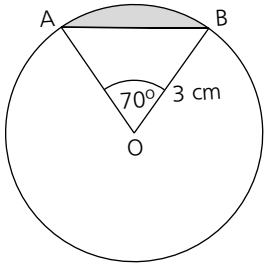
1 a Find the length of the arc x. 1a..... ☐

b Find the area of sector OAB. b..... ☐



2 a Find the shaded area. 2a..... ☐

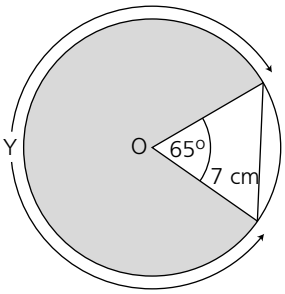
b Find the length of the chord AB. b..... ☐



3 The radius of this circle is 7 cm.

a Find the length of arc Y. 3a..... ☐

b Find the shaded area. b..... ☐



4 The radius of a sphere is 6 cm. Find:

a the total surface area. 4a..... ☐

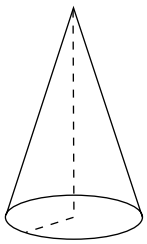
b the volume. b..... ☐

5 This cone has a base radius of 3 cm and a height of 4 cm.

a Find the volume [volume = $\frac{1}{3}\pi r^2 h$]. 5a..... ☐

b Find the slant height. b..... ☐

c Find the curved surface area. c..... ☐



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