

Remove the brackets of the following

1 (j)  $-(10r+35)$

(m)  $3x - (3t + 8u)$

(p)  $2w - (4x-9y)$

2 (k)  $-(2m - 3m)$

(n)  $4r - (10s + 7t)$

(q)  $-x - (-3y - 4z)$

3 What are the supplements of the angles whose measures are given below?

(a)  $10^\circ$

(b)  $117^\circ$

(c)  $82^\circ$

(d)  $90^\circ$

(e)  $165^\circ$

(f)  $22^\circ$

(g)  $68^\circ$

(h)  $131^\circ$

(i)  $92\frac{1}{2}^\circ$

4 What are the complements of the angles whose measures are given below?

(a)  $37^\circ$

(b)  $48^\circ$

(c)  $45^\circ$

(d)  $9^\circ$

(e)  $90^\circ$

(f)  $22^\circ$

(g)  $39^\circ$

(h)  $87^\circ$

(i)  $22\frac{1}{2}^\circ$

- 5 Evaluate the following by taking  $a = -2$ ,  $b = 6$ ,  $c = -4$ ,  $d = 7$ ,  $e = -1$  and  $f = 6$ .

(a)  $\frac{a}{b} (b + e)$

(b)  $b \left( \frac{a}{b} + \frac{c}{d} \right)$

(c)  $a \left( bc + de + \frac{f}{c} \right)$

(d)  $d \left( df - dc + \frac{a}{b} \right)$

- 6 Simplify the following:

(a)  $3a + 7a$

(c)  $3b + (-7b)$

(e)  $3a + 5a + (-7b)$

(g)  $-5c + (-6c) + 2c^2$

(i)  $4d + 5de + 3de$

(k)  $4f + 4fg + 9f$

(m)  $4b - 3b - 7b$

(o)  $-5x \div 15y \div 4xy$

(q)  $-32x \div 4y \times 5yz$

(b)  $3a \times 7a$

(d)  $3b \times (-7b)$

(f)  $3a \times 5a \times (-7b)$

(h)  $-5c \times (-6c) \times 2c^2$

(j)  $4d \times 5de \times 3de$

- (j)  $4d \times 5de \times 3de$
- (l)  $4f \times 4fg \times 9f$
- (n)  $-3ab \times 7a \div 42b$
- (p)  $-7a^2 + 7ab - 14a^2$
- (r)  $72xy \div 8yz \div 4zx$

7 What's a way to define absolute value?

- a) The opposite of a number
- b) The distance of a number from zero
- c) The multiplicative inverse of a number
- d) The value of a number

$$|x| = 7$$

8 Solve the absolute value equation.

- a) No Solution
- b)  $\{7\}$
- c)  $\{0, 7\}$
- d)  $\{-7, 7\}$

9 Solve for x  
 $|4x-3| = 17$

- a)  $x = 10$  and  $x = -10$
- b)  $x = 5$  and  $x = -3.5$
- c) No Solution
- d)  $x = 0$  and  $x = -5$

10 Solve for x  
 $|x-6| + 4 = 10$

- a)  $x = 12$  and  $x = 0$
- b)  $x = 3$  and  $x = -3$
- c)  $x = -12$  and  $x = 0$
- d) No Solution

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11  $-2|-2r - 4| = -12$

a)  $\{-3\}$

b)  $\{3, 1\}$

c)  $\{-5, 1\}$

d) No Solution

- 12 Evaluate the following correct to (i) 2 significant figures, and (ii) 3 significant figures

(a)  $0.76 + 1.234 + 10.2$

(c)  $34.5 + 10.78 - 0.49$

(e)  $71.4 + 35.1 \div 12$

(b)  $28.23 - 1.324 - 8.148$

(d)  $734 \times 3.25 + 170.5$

(f)  $4.21 \div 21.05 \times 0.4571$

- 13 How many significant figures are there in each of the following?

(a) 120 m (nearest 10m)

(b) 35 000 km (nearest 100 km)

(c) 45 000 km (nearest 1 000 km)

(d) 500 000 km (nearest 10 000 km)

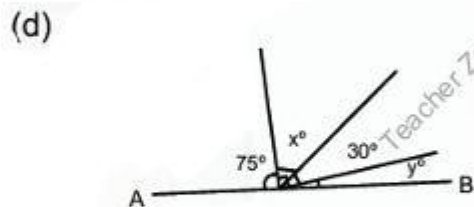
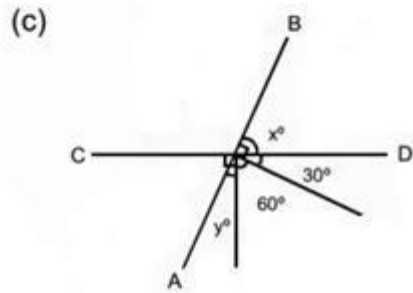
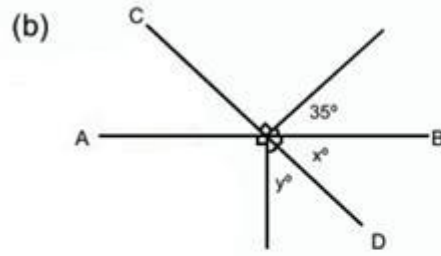
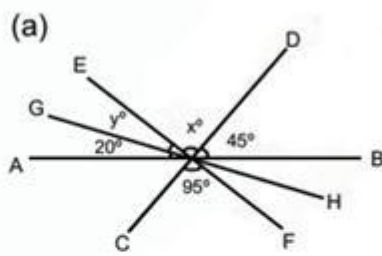
(e) 102 000 km (nearest 100 km)

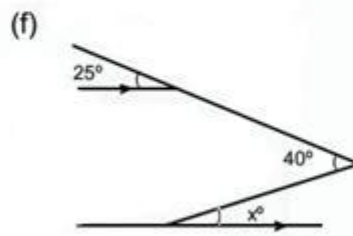
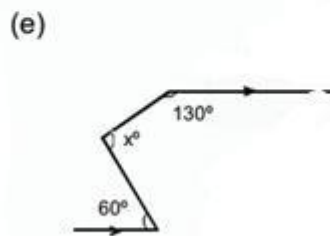
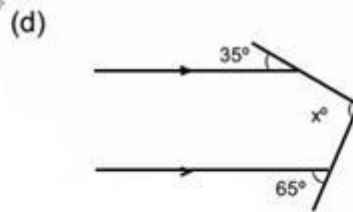
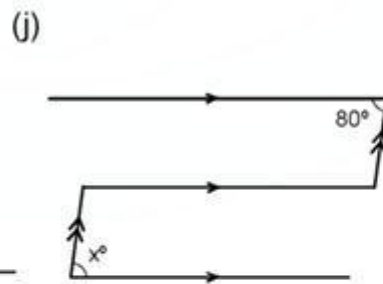
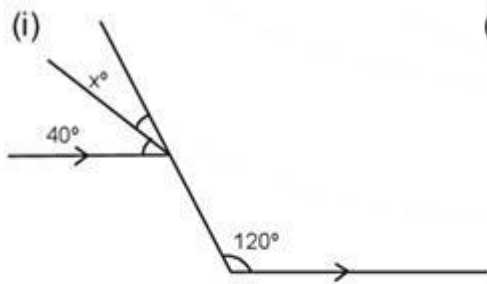
(f) 204 040 km (nearest 10 km)

In this exercise, AB, CD, EF and GH are straight lines.

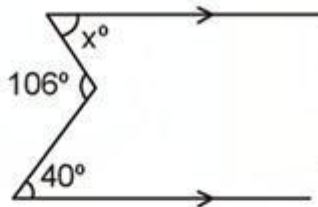
14

Find the values of  $x$  and  $y$ .

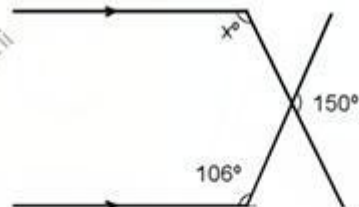




(g)

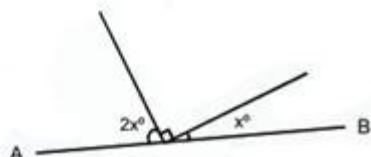


(h)

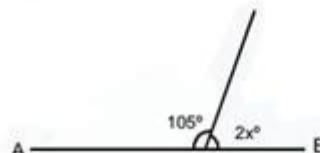


16 Form an equation in  $x$  in each case and solve the equation.

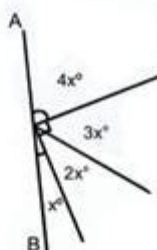
(a)



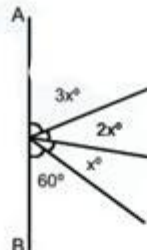
(b)



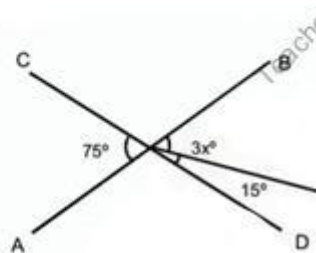
(c)



(d)



(e)



(f)

