

Year 7 Tutorial - 20

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1. Write 120 as a product of prime factors.

2. Find HCF and LCM of 80 and 72.

3. Work out following.

a) $-5 + (-3) \times 5 + 12$

b) $\frac{(-3)^2 \times (-2)}{-6}$

c) $\frac{4^2 \times 3^3 \times 4^3}{4^3 \times 3^2}$

d) $7 - 5(3 \times (-2) + 3)$

4. Solve.

a) $2x - 3 = 7$

b) $\frac{x}{2} = -3$

c) $2x + 8 = x + 5$

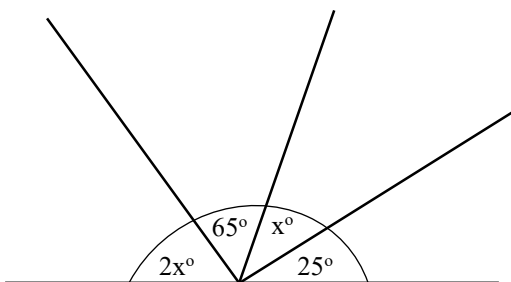
d) $2(x + 3) = x + 7$

e) $\frac{3x-1}{2} = x + 3$

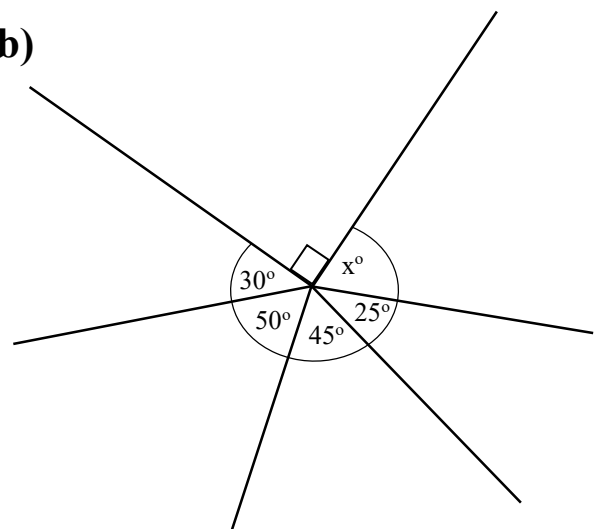
f) $5(x - 3) = 3(x + 2)$

5. Find unknown angles.

a)

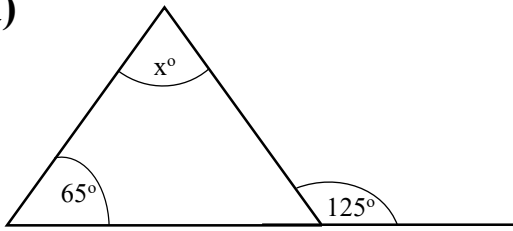


b)

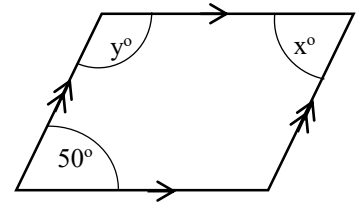


6. Find unknown angles.

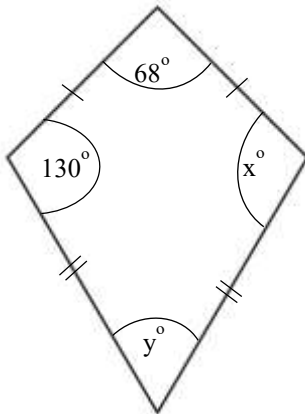
a)



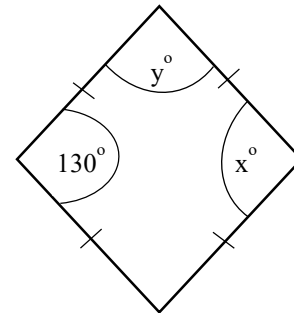
c)



b)

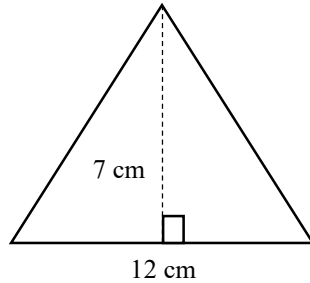


d)

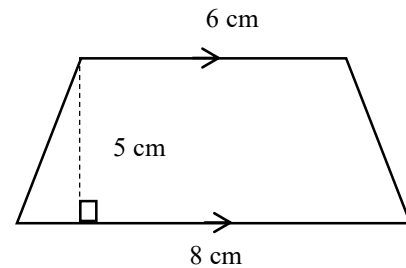


7. Find areas of the following shapes.

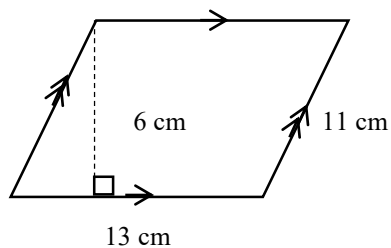
a)



c)



b)



8. Simplify the following.

a) $3\frac{1}{2} \times \frac{2}{3}$

b) $5\frac{3}{5} \div 4\frac{2}{3}$

c) $2\frac{1}{7} + 1\frac{1}{5}$

d) $\frac{13}{15} \times \frac{2}{5} \times \frac{10}{13}$

9. Solve the inequalities and show the solutions on the number line.

a) $3x - 1 > 9$

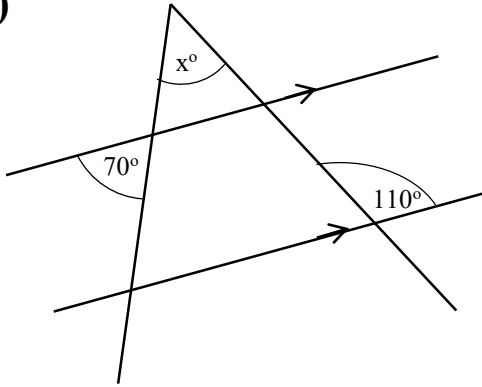
c) $2x + 7 < x + 5$

b) $2(x + 3) \leq 8$

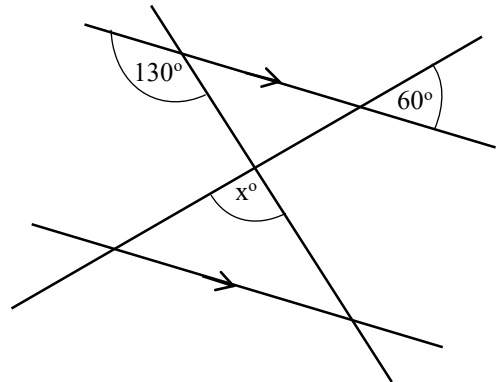
d) $5x - 12 \geq 3x - 10$

10. Find unknown angle.

a)

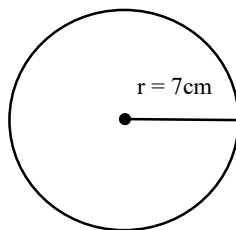


b)

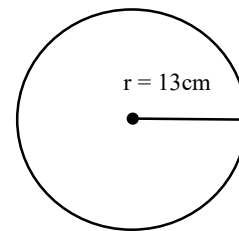


11. Find area and circumference of the following circles.

a)

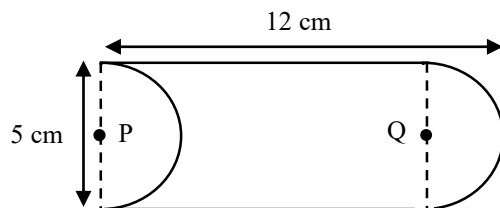


b)



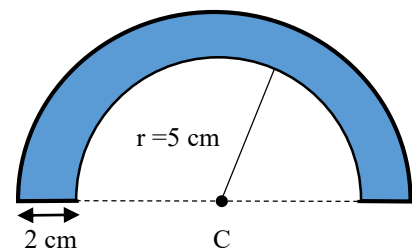
12. Find the area and perimeter of the following shapes.

a)



P and Q are centers of circles.

b)



C is the center.