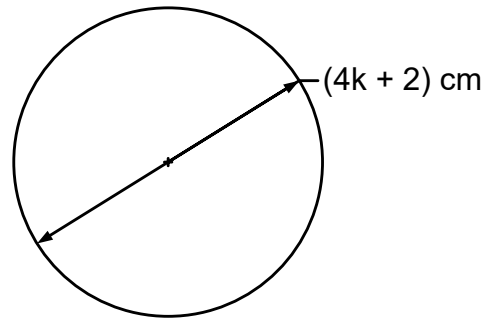


Expanding Brackets

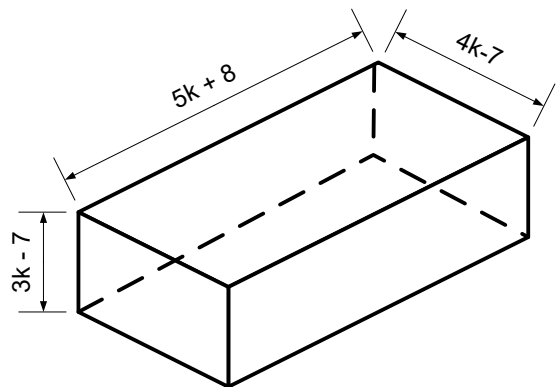
1. $6(3x + 2) + 7(2x + 3) =$
2. $2x(4x + 6) + 8(3x + 7) =$
3. $5x(3x + 8) + 6(2x + 24) =$
4. $3x(3x + 7) + 9(4x + 2) - x(3x + 4) =$

Problems

1. A circle has the diameter, $4k+2$ cm.
 - a. Find the circumference of the circle.
 - b. Find the area of the circle.
 - c. What would the diameter, circumference and area be if $k=12$ cm?



2. Examine the cuboid to the right. Find:
 - a. the length of the edges;
 - b. the surface area;
 - c. the volume of the cuboid.
 - d. If $k=7$, find the above attributes of the cuboid.



3. A ball has a radius of $3k+4$ cm.
 - a. Given that the surface area of the ball can be calculated using the formula $4\pi r^2$, find an exact expression for the surface area.
 - b. Given that the volume of a sphere can be calculated using the formula $\frac{4}{3}\pi r^3$, find the exact volume of the ball.