

The Wheel Shop

Level E

The Wheel Shop sells and repairs bicycles. The repair department of the shop repairs three things—flat tires, bent handlebars, and ripped seats. Today in the repair department, 25% of the bikes had flat tires only, 5% had bent handlebars only, and 10% had ripped seats only. Just $\frac{1}{12}$ of the bikes had all three repairs to do—flat tires, bent handlebars, and ripped seats. No bikes were completely fixed, and there is a total of 101 repairs to be made.

How many bikes are in the repair department?

How many bikes need exactly two repairs?

If less than half of all the bikes have a ripped seat, what is the range of bikes that need both the tires and handlebars repaired without needing to fix the seat?



