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... (base) ... collector emitter ...

... collector emitter ...

... collector emitter ...

... collector emitter ...



William Bradford Shockley
Prize share: 1/3



John Bardeen
Prize share: 1/3



Walter Houser Brattain
Prize share: 1/3

... 1956

...

... 1956

...

30 «...» 1990 1991 «...» .

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[https://www.shabakeh-mag.com/computer-science/15800/%D8%AF%D8%A7%D8%B3%D8%AA:|||||
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%D8%AA%D8%B1%D8%A7%D9%86%D8%B2%DB%8C%D8%B3%D8%AA%D9%88%D8%B1%D8%9
B-%D9%82%D8%B3%D9%85%D8%AA-%D8%A2%D8%AE%D8%B1-%D8%AC%D8%A7%D9%86-
%D8%A8%D8%A7%D8%B1%D8%AF%DB%8C%D9%86%D8%8C-
%D8%AA%D9%86%D9%87%D8%A7-%D8%AF%D8%A7%D8%B1%D9%86%D8%AF%D9%87-
%D8%AF%D9%88-%D8%AC%D8%A7%DB%8C%D8%B2%D9%87-
%D9%86%D9%88%D8%A8%D9%84](https://www.shabakeh-mag.com/computer-science/15800/%D8%AF%D8%A7%D8%B3%D8%AA:|||||
%D8%A7%D9%86-%D8%B3%D9%87-%D9%85%D8%AE%D8%AA%D8%B1%D8%B9-
%D8%AA%D8%B1%D8%A7%D9%86%D8%B2%DB%8C%D8%B3%D8%AA%D9%88%D8%B1%D8%9
B-%D9%82%D8%B3%D9%85%D8%AA-%D8%A2%D8%AE%D8%B1-%D8%AC%D8%A7%D9%86-
%D8%A8%D8%A7%D8%B1%D8%AF%DB%8C%D9%86%D8%8C-
%D8%AA%D9%86%D9%87%D8%A7-%D8%AF%D8%A7%D8%B1%D9%86%D8%AF%D9%87-
%D8%AF%D9%88-%D8%AC%D8%A7%DB%8C%D8%B2%D9%87-
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