

## Numbers and Operations: Dental Assistant

Reed K Jarvis, DDS PA

**Job Description:** Assists dentist and orders supplies. Chair-side duties allowed by Idaho code include alginate impressions and coronal polish.

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### Problem:

A dental assistant needs to order a year's supply of cavity-detecting x-ray film. The practice consists of 800 adults and 700 children who are supposed to come in every 6 months to have checkups. 90% of the patients follow this procedure.

Adults need 4 films for Bitewing x-rays. Children need 2 films for Bitewing x-rays. Kodak distributes the film in packages of 100 units.

How many packages should the dental assistant order?

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### Solution:

$800 \text{ adults} \times 2 \text{ visits/year} \times 90\% \text{ show-up rate} = \text{adult visits}$

$1,600 \text{ visits} \times .90 = 1,440 \text{ adult visits}$

$1,440 \text{ adult visits} \times 4 \text{ films} = 5,760 \text{ films for adults}$

$700 \text{ children} \times 2 \text{ visits/year} \times 90\% \text{ show-up rate} = \text{child visits}$

$1,400 \text{ visits} \times .90 = 1,260 \text{ child visits}$

$1,260 \text{ child visits} \times 2 \text{ films} = 2,520 \text{ films for children}$

$5,760 + 2,520 = 8,280 \text{ films needed}$

$8,280 \text{ films} \div 100 \text{ (films per package)} = 82.8 = 83 \text{ packages}$