

6302-03 Revise doubling and halving (pg 3)

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When we are multiplying by a number ending in **5**, we can double this number and halve the other before multiplying: 84×45 is: $42 \times 90 = 3780$

1. a. 48×25 b. 24×35 c. 26×45 d. 22×35 e. 14×45
2. a. 54×15 b. 68×5 c. 82×35 d. 86×25 e. 42×25
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If one number in a multiplication sum is even, we can halve it, multiply and double the answer.

Eg. 46×14 . Halve **14** and do the sum $46 \times 7 = 322$
Now double the answer \longrightarrow **644**

3. a. 22×31 b. 36×17 c. 22×24 d. 15×18 e. 43×16
4. a. 17×16 b. 21×24 c. 36×22 d. 35×16 e. 28×14
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To multiply a number by **15**, multiply by **10** and add on half the answer.

Eg. 26×15 . Work out $26 \times 10 = 260$
Now add on half the answer. $260 + 130 = 390$

5. a. 24×15 b. 36×15 c. 15×66 d. 15×42 e. 46×15
6. a. 28×15 b. 15×38 c. 15×35 d. 15×83 e. 95×15
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To multiply a number by **25**, multiply by **100** and then divide the answer by **4**.

Eg. 84×25 . Work out $84 \times 100 = 8400$
Now divide by **4** the answer. $8400 \div 4 = 2100$

7. a. 24×25 b. 36×25 c. 64×25 d. 25×86 e. 32×25
8. a. 73×25 b. 38×25 c. 25×46 d. 25×25 e. 54×25

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Answers

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1. a. 1 200 b. 840 c. 1 170 d. 770 e. 630
2. a. 810 b. 340 c. 2 870 d. 2 150 e. 1 050
3. a. 682 b. 612 c. 528 d. 270 e. 688
4. a. 272 b. 504 c. 792 d. 560 e. 392
5. a. 360 b. 540 c. 990 d. 630 e. 690
6. a. 420 b. 570 c. 525 d. 1 245 e. 1 425
7. a. 600 b. 900 c. 1 600 d. 2 150 e. 800
8. a. 1 825 b. 950 c. 1 150 d. 625 e. 1 350