Year 4 maths: Multiples and common multiples (Hard)

Maths · Number
Level: Hard

Student: _____ Date: _____

Instructions
- There are 8 questions. Read each one carefully.
- Write your answers on this paper. Use the space under a question to work it out.
- A grown-up can read a question aloud — that's fine.
- The answers are at the end. Check them together when you have finished.

Questions

1. Which number is a multiple of 8?

Circle one answer.

○ **A** 84 ○ **B** 104 ○ **C** 4 ○ **D** 98 ○ **E** 108

2. What is the product of the odd numbers between 4 and 10?

Circle one answer.

○ **A** 315 ○ **B** 35 ○ **C** 1260 ○ **D** 63 ○ **E** 21

3. Multiply the even numbers between 7 and 13. Answer: ☐

Working:

4. What is the first number after 80 that is a multiple of both 6 and 9?

Circle one answer.

○ **A** 84 ○ **B** 90 ○ **C** 96 ○ **D** 81 ○ **E** 108

5. Tariq makes three claims. 1: 24 is a multiple of both 3 and 4. 2: 30 is a multiple of both 4 and 6. 3: Every multiple of 12 is a multiple of 4. Which claims are correct?

Circle one answer.

○ **A** claim 1 only
○ **B** claim 2 only
○ **C** claims 1 and 3 only
○ **D** claims 2 and 3 only
○ **E** claims 1, 2 and 3

6. Which of these lists is NOT all multiples of 8?

Circle one answer.

○ **A** 64, 32, 56 ○ **B** 88, 24, 96 ○ **C** 16, 48, 28 ○ **D** 8, 40, 24 ○ **E** 80, 16, 72

7. How many whole numbers between 120 and 180 are multiples of 3?

Circle one answer.

○ **A** 17 ○ **B** 20 ○ **C** 18 ○ **D** 21 ○ **E** 19

8. Grace has 40 cards numbered 1 to 40. How many of the cards are not multiples of 6?

Circle one answer.

○ **A** 33 ○ **B** 6 ○ **C** 40 ○ **D** 34 ○ **E** 35

Answer key

Year 4 maths: Multiples and common multiples (Hard) · Sheet 848064

1. B — 104

Count on in 8s from 80: 88, 96, 104, 112. 104 = 8 × 13, so it is a multiple of 8. 84, 98 and 108 are not on the list. 4 is smaller than 8, so it is not a multiple of 8.

2. A — 315

Odd numbers between 4 and 10: 5, 7, 9. 5 × 7 = 35. 35 × 9 = 315.

3. 960

8, 10 and 12 are even. 8 × 10 = 80. 80 × 12 = 960.

4. B — 90

Multiples of 9: 9, 18 … 18 is the first also in the 6s. So count in 18s: 18, 36, 54, 72, 90.

5. C — claims 1 and 3 only

Claim 1: 24 = 8 × 3 = 6 × 4. True. Claim 2: 30 is not in the 4s. False. Claim 3: 12 = 3 × 4, so every multiple of 12 is in the 4s. True.

6. C — 16, 48, 28

28 is not in the 8s: 8 × 3 = 24 and 8 × 4 = 32. 28 is in the 4s, not the 8s. The other lists are all in the 8s (88 = 8 × 11, 96 = 8 × 12).

7. E — 19

120 and 180 don't count. The multiples run 123, 126 … 177. 177 − 123 = 54, 54 ÷ 3 = 18 jumps, so 19 numbers.

8. D — 34

Multiples of 6 up to 40: 6, 12, 18, 24, 30, 36 (6 cards). 40 − 6 = 34.