

# PRACTICE DRILL 7—QUANT COMP (MIDDLE AND UPPER LEVELS ONLY)



Remember to time yourself during this drill!

- (A) means that column A is always greater
- (B) means that column B is always greater
- (C) means that column A is always equal to column B
- (D) means that A, B, or C are not always true

	<u>Column A</u>	<u>Column B</u>
1.	$17 \times 3$	$17 \times 2 + 17$
2.	$\frac{1}{2}$	$\frac{3}{8}$
3.	$b + 80$	$b + 82$
Rob is two inches shorter than Matt. Joel is four inches taller than Matt.		
4.	Rob's height	Joel's height
5.	$16^3$	$4^6$
Kimberly lives two miles from school. Jennifer lives four miles from school.		
6.	The distance from Kimberly's house to school	The distance from Kimberly's house to Jennifer's house

## Practice Drill 7—Quant Comp

1. C

Look at column B first.  $17 \times 2 + 17$  is the same as  $17 + 17 + 17$ , or  $17 \times 3$ . Thus, the two columns are equal. The correct answer is (C).

2. A

Draw a picture. For instance, draw a pie and divide it into eight parts since eight is a common denominator for  $\frac{1}{2}$  and  $\frac{3}{8}$ . Since  $\frac{1}{2} = \frac{4}{8}$ , four of the eight parts of the pie would be colored in. Only three out of eight would be filled in for  $\frac{3}{8}$ . Therefore, column A is greater, and the correct answer is (A).

3. B

There are variables in the columns, so plug in twice. For instance, try  $b = 10$ .  $10 + 80 = 90$ , and  $10 + 82 = 92$ . In this case, column B is greater, so eliminate (A) and (C). Try another number, perhaps a negative number:  $-10$ . Perform the necessary calculations:  $-10 + 80 = 70$  and  $-10 + 82 = 72$ . Column B is still greater, so the correct answer is (B).

4. B

Plug in a value here. Say that Matt is 60 inches tall, making Rob 58 inches tall since *Rob is two inches shorter than Matt*. The question stem also states that *Joel is four inches taller than Matt*, so Joel must be 64 inches tall. This makes Joel taller than Rob, so column B is greater. The correct answer is (B).

5. C

When dealing with exponents, write it out! Column A can be rewritten as  $16 \times 16 \times 16$ . Column B can be rewritten as  $4 \times 4 \times 4 \times 4 \times 4 \times 4$ . Notice that 16 is the same as  $4 \times 4$ . Therefore, column A can also be written as  $(4 \times 4) \times (4 \times 4) \times (4 \times 4)$ . Since each column contains 6 fours, the two columns are equal. The correct answer is (C).

6. D

The information given does not indicate the direction or orientation of either girl's house. However, the information does state that *Kimberly lives two miles from school*, so column A is 2. However, Jennifer could live another two miles past Kimberly's house, four miles in the other direction from the school (making the two houses 6 miles apart), or she could even live 4 miles north or south of the school (making the distance between their houses yet another value). Since there is no way to determine the distance between their houses without more information, the solution cannot be determined. The correct answer is (D).