First Name: _____	**Last Name:** _____	**Grade:** _____
Teacher: _____	**Parent's email:** _____	

Books and Movies

Welcome to Math Challenge #14. Books and movies have the power to transport us into new worlds, whether through the pages of a thrilling novel or the scenes of an epic film. Behind every great book or movie lies a world of numbers—page counts, reading speeds, movie runtimes, ticket sales, and more. In this challenge, you will put your problem-solving skills to the test with math problems inspired by books and movies.

Kinder & First Grade: solve <u>at least</u> 3 problems.
Second & Third Grade: solve <u>at least</u> 7 problems.
Fourth Grade and above: solve <u>at least</u> 12 problems.

		Answer
1.	Tim borrowed 3 picture books, 2 comic books, and 2 non-fiction books from the library. How many books did Tim borrow in total?	
2.	In Troy's bookcase, the number of books in each section is different. The bookcase has three sections: • Section A has 5 books. • Section B has 2 more books than Section A. • Section C has 3 fewer books than Section B. How many books are in Troy's bookcase altogether?	
3.	 At the movie theater, tickets for a show are priced at $5 for children and $8 for adults. A group of friends buys a total of 4 tickets: 3 child tickets and 1 adult ticket. How much did the group spend in total?	
4.	Three friends, *Emma*, *Liam*, and *Sophia*, each have a different number of books in their reading collection. Here are the clues: • *Emma* has 20 books. • *Liam* has 3 more books than *Emma*. • *Sophia* has half as many books as *Emma*. How many books do all three of them have in total?	
5.	Myra is reading a 40-page book. Each day, she reads 6 pages. If she starts reading it on Monday, what day will she finish reading the book?	

6. There are 5 books in a series, each with a different number of pages. The first book has 100 pages. The second book has 25 pages more than the first book. The third book has 10 pages less than the second book. The fourth book has 58 pages less than the third book. The fifth book has the same number of pages as the second and third books combined.

a. How many pages are in the fifth book?

a.

b. How many pages do all five books have combined?

b.

7. There are two friends, Alice and Bob, who want to watch the same movie, but they live in different time zones. The movie starts at 7:00 PM in Alice's time zone, and 9:00 PM in Bob's time zone.

a. How many hours apart are Alice's and Bob's time zones?

a.

b. If the movie lasts 2 hours and Alice finishes watching at 9:00 PM in her time zone, what time will Bob finish watching the movie?

b.

8. A book club plans to watch a movie adaptation of the book they just finished reading. The movie is 2 hours and 30 minutes long. The movie starts at 6:15 PM. If they plan to discuss the movie for 45 minutes right afterward, what time will the discussion end?

9. 

Cameron reads a 100-page book. He reads 8 pages every day, except on Sunday and Wednesday. If he starts reading on Saturday, what day will he finish reading the book?

10. David listens to an audiobook that takes 12 hours to complete. He listens to it for 45 minutes every day. If he starts on Monday, which day will he finish the audiobook?

11.	A book club is reading a 500-page book and plans to watch the movie adaptation afterward. The movie is 2 hours and 30 minutes long, but it only covers 3/4 of the book's content. a. How many pages of the book are covered in the movie? b. If it takes the club 1 week to read 75 pages per day, what is the minimum number of full days will it take them to read the entire book before watching the movie?	*a.* *b.*
12.	Quentin starts to read a 285-page book on a Sunday. He reads four pages each day except on Sundays when he reads 25 pages. How many full days does it take him to finish the book?	
13.	Claire has a stack of comic series books. When she divides them into groups of 4, she has 3 books left. When she divides them into groups of 5, she has 4 books left. When she divides them into groups of 6, she has 5 books left. What is the smallest possible number of books in the stack?	
14.	A book is numbered starting from page 1, and a total of 225 digits are used to write all the page numbers. How many pages does the book have?	
15.	Ethan is participating in a reading challenge where he has to finish 3 books within 2 weeks (14 days). • Book 1 has 320 pages, and Ethan plans to read 80 pages per day. • Book 2 has 150 pages, and Ethan reads it in 3 days. • Book 3 has 450 pages, and Ethan reads a different number of pages each day. On the first day, he reads 50 pages, and every subsequent day, he reads 5 more pages than the previous day. a. How many days will it take Ethan to finish the 3rd book? b. After 14 days, how many total pages has Ethan read? How many pages are left to complete the challenge?	*a.* *b.*

16. A movie theater has 20 rows of seats with 30 seats per row.
    - The first 5 rows are VIP seats that cost $20 per ticket.
    - The rest of the seats cost $15 per ticket.

    If the theater sells out all seats, what is the total revenue?
    Revenue *is a total amount of money raised.*

17. Thomas reads a math book. He reads 1 page on the first day, 2 pages on the second day, 3 pages on the third day, and so on, each day reading one more page than the previous day. If the book has 1000 pages, how many days will it take Thomas to finish the book?

18. A library has three shelves filled with books.
    - The first shelf has 20% fewer books than the second shelf.
    - The third shelf has 30% more books than the second shelf.
    - The total number of books on all three shelves is 372.

    How many books are on the third shelf?