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Digital Design Project #8: Counters and Clock Dividers



Submission form revision September 5, 2025

| I am submitting my own work, and | d I accept that penalties will be assessed against me if I subm | | | | | bmit work that isn't mine. Asst. Signature | | | Point Scale 4: Exemplary 3: Complete 2: Incomplete 1: Minor effort 0: Not submitted | | |
|--|---|----|----|---|----|---|---|--------------------------------|---|-------|--|
| Circle one column below and modify earned scores accordingly | | | | | | | | | | | |
| Weeks Early / Late | -3 | -2 | -1 | 0 | | 1 | 2 | 3 | 4 | 5+ | |
| Requirements Points | +12 | +8 | +4 | 0 | - | 4 | -8 | -12 | -15 | -18 | |
| Challenges Points | +3 | +2 | +1 | 0 | -1 | | -2 | -3 | -4 | -4 | |
| Requirements | | | | | Pt | Score | | Possible | E | arned | |
| 1. Clock divider using a bit from an asynchronous counter | | | | 2 | | | | | | | |
| 2. Clock divider using a bit from a synchronous counter | | | | 2 | | | | 52 | | | |
| 3. Counter-based clock divider | | | | 2 | | | | | | | |
| 4. BCD counter | | | | 2 | | | Modify earned scores by submission week according to table above. | | | | |
| 5. 4-digit BCD counter | | | | 3 | | | | | | | |
| 6. Homework problems | | | | 2 | | | | week decording to table above. | | | |
| Challenges | | | | | | | | Possible | E | arned | |
| 1. Loadable counter | | | | 3 | | | | | | | |
| | | | | | | | | 12 | | | |
| | | | | | | | | | | | |