6F

1) $\frac{20}{30}+\frac{6}{30}=\frac{26}{30}$

2) $\frac{6}{12}+\frac{4}{12}=\frac{10}{12}$

3) $\frac{22}{77}+\frac{21}{77}=\frac{43}{77}$

4) $\frac{5}{10}-\frac{2}{10}=\frac{3}{10}$

5) $\frac{8}{12}-\frac{3}{12}=\frac{5}{12}$

6) $\frac{18}{72}-\frac{16}{72}=\frac{2}{72}$

7) $\frac{5}{6}=\frac{10}{12}=\frac{15}{18}=\frac{20}{24}$

8) $\frac{1}{10}=\frac{2}{20}=\frac{3}{30}=\frac{4}{40}$

9) $28 \div 7 = 4$; $4 \times 3 = 12$

10) $54 \div 6 = 9$; $9 \times 1 = 9$

11) $8 \div 8 = 1$; $1 \times 4 = 4$

12) $(70) \times (90) = (6{,}300)$
$73 \times 89 = 6{,}497$

13) $(30) \times (90) = (2{,}700)$
$26 \times 91 = 2{,}366$

14) $(50) \times (10) = (500)$
$47 \times 11 = 517$

15) $18 \times 12 = 216$

16) $312 \times 3 = 936$ mi.

17) $\frac{4}{9}+\frac{3}{6}=\frac{24}{54}+\frac{27}{54}=\frac{51}{54}$

18) 5/6 of 60= 50

19) 300

20) $13 + 18 + 13 + 18 = 62$"
$2 \times 24 = 48$"
62" > 48"; no

7A

1) done

2) $\frac{9}{15}<\frac{10}{15}$ so $\frac{3}{5}<\frac{2}{3}$

3) done

4) $\frac{18}{30}<\frac{20}{30}$ so $\frac{3}{5}<\frac{4}{6}$

5) $\frac{8}{12}<\frac{9}{12}$ so $\frac{2}{3}<\frac{3}{4}$

6) $\frac{6}{15}>\frac{5}{15}$ so $\frac{2}{5}>\frac{1}{3}$

7B

1) done

2) $\frac{12}{18}<\frac{15}{18}$ so $\frac{2}{3}<\frac{5}{6}$
less than

3) $\frac{12}{18}>\frac{9}{18}$ so $\frac{2}{3}>\frac{3}{6}$
greater than

4) $\frac{5}{10}>\frac{4}{10}$ so $\frac{1}{2}>\frac{2}{5}$
greater than

5) $\frac{6}{18}=\frac{6}{18}$ so $\frac{1}{3}=\frac{2}{6}$
equal

6) $\frac{10}{20}>\frac{4}{20}$ so $\frac{2}{4}>\frac{1}{5}$
greater than

7) $\frac{5}{10}>\frac{4}{10}$ so $\frac{1}{2}>\frac{2}{5}$
Trisha got more votes

8) $\frac{6}{18}<\frac{12}{18}$ so $\frac{2}{6}<\frac{2}{3}$
Donald ran further

7C

1) $\frac{24}{30}>\frac{20}{30}$ so $\frac{4}{5}>\frac{4}{6}$
greater than

2) $\frac{8}{12}<\frac{12}{12}$ so $\frac{4}{6}<\frac{2}{2}$
less than

3) $\frac{21}{56}<\frac{32}{56}$ so $\frac{3}{8}<\frac{4}{7}$
less than

4) $\frac{6}{27}<\frac{9}{27}$ so $\frac{2}{9}<\frac{1}{3}$
less than

5) $\frac{18}{24}<\frac{20}{24}$

6) $\frac{12}{24}=\frac{12}{24}$

7) $\frac{10}{20}>\frac{6}{20}$

8) $\frac{28}{35}<\frac{30}{35}$

9) $\frac{6}{24}>\frac{4}{24}$ Shirley

10) $\frac{36}{60}>\frac{35}{60}$ east side

7D

1) $\frac{6}{18}<\frac{9}{18}$

2) $\frac{10}{16}>\frac{8}{16}$

3) $\frac{12}{48}=\frac{12}{48}$

4) $\frac{12}{24}+\frac{4}{24}=\frac{16}{24}$

5) $\frac{48}{80}-\frac{30}{80}=\frac{18}{80}$

6) $\frac{14}{63}+\frac{45}{63}=\frac{59}{63}$

7) $\frac{6}{8}=\frac{12}{16}=\frac{18}{24}=\frac{24}{32}$

8) $6 \div 2 = 3$;
$3 \times 1 = 3$

9) $42 \div 6 = 7$;
$7 \times 3 = 21$

10) $24 \div 8 = 3$;
$3 \times 3 = 9$

11) done

12) $4\frac{3}{5}$

13) $8\frac{3}{7}$

14) $17 \div 4 = 4\frac{1}{4}$ yds.

15) $\frac{16}{56}<\frac{35}{56}$ Penny did more
$\frac{16}{56}+\frac{35}{56}=\frac{51}{56}$ done
$\frac{56}{56}-\frac{51}{56}=\frac{5}{56}$ left

16) 5/56 of 56:
$56 \div 56 = 1$; $1 \times 5 = 5$

17) $\frac{3}{12}+\frac{4}{12}=\frac{7}{12}$

18) $\frac{21}{24}-\frac{8}{24}=\frac{13}{24}$ inches

7E

1) $\frac{9}{15} > \frac{5}{15}$

2) $\frac{12}{18} > \frac{3}{18}$

3) $\frac{108}{120} > \frac{70}{120}$

4) $\frac{5}{10} + \frac{4}{10} = \frac{9}{10}$

5) $\frac{6}{12} - \frac{4}{12} = \frac{2}{12}$

6) $\frac{15}{40} + \frac{24}{40} = \frac{39}{40}$

7) $\frac{1}{10} = \frac{2}{20} = \frac{3}{30} = \frac{4}{40}$

8) $32 \div 8 = 4;\ 4 \times 7 = 28$

9) $21 \div 7 = 3;\ 3 \times 2 = 6$

10) $20 \div 4 = 5;\ 5 \times 3 = 15$

11) $5\frac{2}{6}$

12) $2\frac{3}{8}$

13) $9\frac{3}{5}$

14) (20) x (20) = (400)
21 x 16 = 336

15) (30) x (30) = (900)
34 x 29 = 986

16) (80) x (10) = (800)
75 x 12 = 900

17) $\frac{7}{42} + \frac{6}{42} = \frac{13}{42}$

18) 4/7 of 28 = 16

19) 8 + 10 + 8 + 10 = 36
1/4 of 36 = 9 yds.

20) $\frac{8}{16} > \frac{6}{16}$ so $\frac{1}{2} > \frac{3}{8}$

7F

1) $\frac{60}{120} = \frac{60}{120}$

2) $\frac{10}{35} < \frac{21}{35}$

3) $\frac{3}{6} < \frac{4}{6}$

4) $\frac{10}{15} + \frac{3}{15} = \frac{13}{15}$

5) $\frac{16}{24} - \frac{6}{24} = \frac{10}{24}$

6) $\frac{45}{54} + \frac{6}{54} = \frac{51}{54}$

7) $\frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{12}{16}$

8) $10 \div 5 = 2;\ 2 \times 3 = 6$

9) $12 \div 4 = 3;\ 3 \times 1 = 3$

10) $24 \div 6 = 4;\ 4 \times 4 = 16$

11) $4\frac{1}{3}$

12) $9\frac{3}{4}$

13) $6\frac{4}{9}$

14) (60) x (50) = (3,000)
65 x 51 = 3,264

15) (50) x (20) = (1,000)
45 x 19 = 855

16) (80) x (40) = (3,200)
82 x 37 = 3,034

17) 8 + 9 + 10 = 27 ft.

18) $\frac{25}{30} > \frac{24}{30}$ so $\frac{5}{6} > \frac{4}{5}$

19) 5/6 of 30 = 25 for Kiley
4/5 of 30 = 24 for Casey
25 > 24; yes

20) $\frac{20}{32} < \frac{24}{32}$ so $\frac{5}{8} < \frac{3}{4}$

8A

1) done

2) $\frac{6}{30} + \frac{5}{30} = \frac{11}{30}$
$\frac{11}{30} + \frac{1}{2} = \frac{22}{60} + \frac{30}{60} = \frac{52}{60}$

3) $\frac{3}{24} + \frac{8}{24} = \frac{11}{24}$
$\frac{11}{24} + \frac{1}{6} = \frac{66}{144} + \frac{24}{144} = \frac{90}{144}$

4) $\frac{6}{24} + \frac{20}{24} = \frac{26}{24}$
$\frac{26}{24} + \frac{1}{3} = \frac{78}{72} + \frac{24}{72} = \frac{102}{72} = 1\frac{30}{72}$
note: at this point the final step is optional when working with fractions larger than one.

5) done

6) done

7) $\frac{3\times6\times10}{7\times6\times10} + \frac{1\times7\times10}{6\times7\times10} + \frac{3\times7\times6}{10\times7\times6} =$
$\frac{180}{420} + \frac{70}{420} + \frac{126}{420} = \frac{376}{420}$

8) $\frac{4\times2}{5\times2} + \frac{3}{10} + \frac{1\times5}{2\times5} =$
$\frac{8}{10} + \frac{3}{10} + \frac{5}{10} = \frac{16}{10} = 1\frac{6}{10}$

9) $\frac{5}{8} + \frac{7}{8} + \frac{4}{8} = \frac{16}{8} = 2$ ft.

10) $\frac{5}{40} + \frac{8}{40} = \frac{13}{40}$
$\frac{13}{40} + \frac{1}{4} = \frac{52}{160} + \frac{40}{160} = \frac{92}{160}$
or $\frac{13}{40} + \frac{10}{40} = \frac{23}{40}$

The student may begin to recognize shortcuts that yield fractions that look different than the answers given. As long as the answer is equivalent to the given answer, it is correct. For example, 2/5 is the same as 4/10.

8B

1) $\frac{5}{10} + \frac{4}{10} = \frac{9}{10}$
$\frac{9}{10} + \frac{5}{6} = \frac{54}{60} + \frac{50}{60} = \frac{104}{60} = 1\frac{44}{60}$

2) $\frac{10}{35} + \frac{7}{35} = \frac{17}{35}$
$\frac{17}{35} + \frac{2}{3} = \frac{51}{105} + \frac{70}{105} = \frac{121}{105} = 1\frac{16}{105}$

3) $\frac{6}{16} + \frac{8}{16} = \frac{14}{16}$
$\frac{14}{16} + \frac{2}{5} = \frac{70}{80} + \frac{32}{80} = \frac{102}{80} = 1\frac{22}{80}$

4) $\frac{9}{63} + \frac{14}{63} = \frac{23}{63}$
$\frac{23}{63} + \frac{1}{3} = \frac{69}{189} + \frac{63}{189} = \frac{132}{189}$

5) $\frac{5\times2\times3}{7\times2\times3} + \frac{1\times7\times3}{2\times7\times3} + \frac{1\times7\times2}{3\times7\times2} =$
$\frac{30}{42} + \frac{21}{42} + \frac{14}{42} = \frac{65}{42} = 1\frac{23}{42}$

6) $\frac{4}{8} + \frac{6}{8} + \frac{5}{8} = \frac{15}{8} = 1\frac{7}{8}$

7) $\frac{2\times4\times6}{5\times4\times6} + \frac{1\times5\times6}{4\times5\times6} + \frac{1\times5\times4}{6\times5\times4} =$
$\frac{48}{120} + \frac{30}{120} + \frac{20}{120} = \frac{98}{120}$

8) $\frac{4}{9} + \frac{3}{9} + \frac{2}{9} = \frac{9}{9} = 1$

9) $\frac{1}{10} + \frac{4}{10} + \frac{5}{10} = \frac{10}{10} = 1$ mile

10) $\frac{5}{6} + \frac{3}{6} + \frac{4}{6} = \frac{12}{6} = 2$