

HW 5 Solution

6.4.6

(a)

```
SELECT    AVG(speed) AS Avg_Speed
FROM      PC ;
```

AVG_SPEED

2.4846153846153846153846153

1 record(s) selected.

(b)

```
SELECT  AVG(speed) AS Avg_Speed
FROM    Laptop
WHERE   price > 1000 ;
```

AVG_SPEED

1.998333333333333333333333

1 record(s) selected.

(c)

```
SELECT  AVG(P.price) AS Avg_Price
FROM    Product R,
        PC P
WHERE   R.model=P.model
        AND R.maker='A' ;
```

AVG_PRICE

1195

```
1 record(s) selected.
```

(d)

```
SELECT  AVG(M.price) AS Avg_Price
FROM
```

```
(SELECT P.price
FROM   Product R,
       PC P
WHERE  R.model = P.model
       AND R.maker = 'D'
```

UNION ALL

```
SELECT  L.price
FROM    Product R,
        Laptop L
WHERE   R.model = L.model
        AND R.maker = 'D'
) M ;
```

AVG PRICE

730

1 record(s) selected.

```
(e)
SELECT    SPEED,
          AVG(price) AS AVG_PRICE
FROM      PC
GROUP BY  speed ;
```

SPEED	AVG_PRICE
1.42	478
1.86	959
2.00	650
2.10	995
2.20	640
2.66	2114
2.80	689
3.06	529
3.20	839

9 record(s) selected.

```
(f)
SELECT  R.maker,
        AVG(L.screen) AS Avg_Screen_Size
FROM    Product R,
        Laptop L
WHERE   R.model = L.model
GROUP BY R.maker ;
```

[illegible]

5 record(s) selected.

```

(g)
SELECT  R.makeR
FROM    Product R,
        PC P
WHERE   R.model = P.model
GROUP BY R.makeR
HAVING COUNT(R.model) >=3 ;

```

```

better:
SELECT  makeR
FROM    Product
WHERE   type='pc'
GROUP BY makeR
HAVING COUNT(model) >=3 ;

```

MAKER

A
B
D
E

4 record(s) selected.

```

(h)
SELECT  R.makeR,
        MAX(P.price) AS Max_Price
FROM    Product R,
        PC P
WHERE   R.model = P.model
GROUP BY R.makeR ;

```

MAKER MAX_PRICE

A	2114
B	1049
C	510
D	770
E	959

5 record(s) selected.

```
(i)
SELECT  speed,
        AVG(price) AS Avg_Price
FROM    PC
WHERE   speed > 2.0
GROUP BY speed ;
```

SPEED	AVG_PRICE
2.10	995
2.20	640
2.66	2114
2.80	689
3.06	529
3.20	839

6 record(s) selected.

```
(j)
SELECT  AVG(P.hd) AS Avg_HD_Size
FROM    Product R,
        PC P
WHERE   R.model = P.model
        AND R.maker IN
        (SELECT maker
         FROM   Product
         WHERE  type = 'printer'
        ) ;
```

AVG_HD_SIZE
200

1 record(s) selected.